

University of Alberta

Leisure Information Behaviours in Hobby Quilting Sites

by

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Abstract

Twenty five hobby internet Web sites and blogs devoted to quilting are the subject of this qualitative study. The research asks what roles creativity, virtual community, and expressed motivations play in prompting hobby enthusiasts to create online information repositories for public use, without expectation of reward, and if there are transferable principles that can be used to motivate employees in work settings to contribute to electronic information repositories. The findings, which discuss issues of teaching, community, generativity, creativity, and emotion, are placed with serious leisure, everyday life information seeking (ELIS), and interface design contexts. The results of this study indicate that interfaces offering flexible roles, accommodation of off-topic discussion, and opportunities for creativity, if placed within a positive work-community environment, will help stimulate employee contributions to information repositories.

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Dedication

A lifetime of thanks to my parents for their constant investments in my education.

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Chapter One – Introduction

The purpose of this project is to investigate how personal creativity influences the voluntary development of an information resource. The information resources chosen for study are quilting Web sites created by quilting hobbyists, because they are an holistic, interactive mechanism through which individuals are motivated to express their creativity. These sites will be referred to as "hobby sites", because they are Web sites created as information resources by quilters for non-commercial purposes.

The study will first explore why these sites are constructed; secondly, the study will examine how creativity and motivation generated in personal leisure time can be harnessed and brought into play in LIS information design. Principles are then extrapolated from the findings which, when applied, could be used to encourage individuals to build and maintain information repositories within professional settings.

The research problem asks what information features indicative of personal creativity characterize the Web sites and what reasons site owners (i.e., those who have created and developed the site content) give for the sharing of personally developed information structures. By analyzing the content of hobby Web sites, this study provides insight into how quilter-hobbyists structure and visualize online information while voluntarily seeking and sharing learning experiences. Such insight is valuable because it examines voluntary and amateur aspects of online communities within serious leisure and everyday life information seeking contexts. The emphasis on leisure activities places the study within library and information studies' (LIS) examination of informational issues in the sociological field of serious leisure. "Serious leisure", a subset of sociology's leisure studies, is defined as voluntary activity that provides some measure of pleasure or satisfaction that is vigorously pursued and regularly cultivated over time with the intent to develop skill in its practice (Stebbins 2007). Everyday life information seeking, or ELIS, provides a second context for this project. It refers to an area of study within library and information studies that investigates how people, outside of their careers, function as seekers of information in everyday settings. This area of research has the benefit of addressing social and cultural factors in information seeking, and makes provision for hobby-related activities (Savolainen 2005) such as quilting.

About Quilts

The author has been a quilter herself for seventeen years, and her personal experiences within the quilting community were a part of the formulation of this study.

Those experiences were of great help in analyzing and interpreting the findings, since a common ground was shared with the quilters whose sites are part of this study's data set. That knowledge gained from previous quilting activities informed the development of the study by providing the author with a prior knowledge of quilting terms, the technical skills prized by quilters, real-time community informational activities, and quilting traditions. Recognizing, however, that not all readers will have had such experiences, a glossary of quilting terms has been provided in Appendix A.

Quilts are objects rich in social culture, history, creativity, and family. They traditionally are made of three layers of material: a backing, some sort of batting (a filler to retain heat), and a top. The top is usually designed for display, and is intended to provide aesthetic pleasure to the viewer. Quilts are typically functional, in that while they incorporate artistic statements to some degree, they are meant to be used as a warm covering.

The activity of quilting brings with it certain social expectations, activities, and traditions that together help to create the quilting culture. Quilting research shows that this culture is frequently generative, tying generations of family through the quilts. Quilting bees, a unique creation of the "New World" frontier life, reflect the now-traditional socializing around quilts and the expectations that a quilter will teach others to quilt (Piercy and Cheek 2004; Kiracofe 1993). As a result, within this context quilting is about social networks and the sharing of information. Sharing personal creativity and the fostering of the craft are core values within quilting communities, which encourages quilters to continue those teaching and sharing activities online.

In light of the extensive history behind quilts and quilting and the potentially broad context of the project, the term "quilt" has been given a very specific definition for the purposes of this study. Quilts are defined as those physical objects created for decoration and comfort in the home; quilters are those people who create quilts for such a purpose. Quilting Web sites, although defined here as hobby sites created for non-commercial purposes, may include some commercial elements, such as advertising space, if used only for the expressed purpose of helping to pay for the site or to promote its use by the public. Hobby sites are those sites created for the purpose of self-expression and not for financial gain or to promote any cause save that of the leisure pursuit of quilting.

Technology and Information Structures

The information structures contained within these quilting Web sites are affected by the technologies available to, and understood by, the site owners. Technology itself may act as a mediator between what the site owner would like to present and what the user actually sees. In those cases where the site developer is not the same as the content developer (e.g., with some blogs) quilters may adapt their content to the technological framework provided. It is hypothesized in this study that analyzing the technological structure and tools of quilting Web sites and blogs (e.g., blogrolls and use of hyperlinks) to examine information practices of quilters will impact the study in two specific ways. First, the adaptations site owners make in circumventing the restrictions of particular technologies (e.g., use of quilting message boards to start a "happy birthday and best wishes" thread filled with emoticons) highlight the fundamental characteristics of a community. Within quilting communities those characteristics include generativity, social support and networking, and fostering of craft amongst new practitioners. If people within the community want to express certain values or sub-context as part of their information exchange, they will, if need be, adapt the tools available to them. Such efforts are a part of how members of virtual communities attempt to share the contextual information easily conveyed in face to face dialogue (Googins, Laffey, and Tsai 2007). Second, the difficulties of surmounting computer literacy issues on the part of site owners, and their expressed intent to provide genuinely useful resources to users, should mean that only that which is perceived to be the most essential information, or "significant information structures" (Borgman 1999) will be communicated to the user. If site owners do not know or fully understand how computers and software work, then that means they are stepping outside a comfort zone in order to create an information resource. The work and effort needed to overcome any kind of computer illiteracy means that the site owners feel that the information on the sites has a high value and needs to be shared, for whatever reason, with the quilting community.

The quilting Web sites analyzed in this study are considered significant information structures as they are painstaking creations born of personal knowledge and enthusiasm for quilts and quilting. This term, "significant information structures", describes the result when people suppress information deemed irrelevant or confusing in order to communicate information deemed pertinent. The choices the communicator makes in what information is presented (i.e., what to keep, what to leave out), so clarity

can be maximized, results in the creation of significant information structures (Borgman 1999). Hobby Web sites are not only significant information structures born of personal leisure, motivation, and creative impulse, but also serve as collaborative spaces where other would-be quilters are encouraged to take up quilting themselves and are provided with some tools to help them acquire needed skills. The texts contained within these sites could potentially be used to better inform interface design and digital environments, by applying principles behind them to motivate users in specialized digital environments to collectively create and maintain information.

Related Literature – An Overview

This study fills a gap in current LIS research, leisure studies research, and studies of interface design. While many scholars have studied leisure activities through various theoretical lenses (e.g., Piercy and Cheek 2004; Turkle 2004; Rojek 2002; Gelber 1997), few LIS scholars have investigated serious leisure information behaviours (e.g., Prigoda and McKenzie 2007; Hartel 2006, 2003), and none have yet studied serious leisure information behaviours (the ways, tools, and strategies people use to locate leisure information) online. The lack of research in this area, and the unique information structures characteristic to individual hobby groups generally and quilters specifically make this a valuable area for discovery. It is hoped that this study will begin to highlight some areas of interest in ELIS as it relates to hobby-related information seeking. Also, a review of leisure studies research shows that leisure scholars have not yet begun to investigate online leisure other than that pertaining to online gaming. Hobbyists that create physical objects and their online activities have not yet been the subject of leisure studies research. This study addresses that lack.

Interface designers are exploring how to support and build communities online, constantly building on existing theory to explore new practices. While there is a body of research in this area (e.g., Chewar, McCrickard, Carroll 2005; Erickson and Kellogg 2000), the focus is frequently on the programming needed to support communities, or the professional working contexts of communities, with emphasis on "community building". The LIS perspective is often more narrow, focusing on the imperative to connect the information seeker with information needed (e.g., Quint, 2007; Tang, 2007). Both of these perspectives are brought together here, since this study addresses the concept of community from an LIS perspective. The study investigates the community's supportive, networked strategies for growth that are motivated not by salary, but by pleasure, creativity, and altruism. The study simultaneously investigates

how those aspects of community cultivate information exchange. Additional details are available in chapter two.

Overview of Project Design

By linking these three research areas—library and information studies, sociology's serious leisure, and computer science/design's interface design for communities, this research is able to investigate issues that cross the sometimes rigid boundaries of scholarly disciplines. This kind of interdisciplinary collaboration is something research in the humanities has often sought to do. As a result, the methodology for this study is a qualitative examination of a sample of quilting Web sites, using textual analysis. The analysis of the results is then based in domain analysis, using a grounded theory approach. Research questions to be answered with this methodological framework included questions about expressions of personal creativity, motivations to create information resources as expressed by site owners, and an examination of communication strategies, including how site owners encourage the visitors to their sites to also acquire quilting skills. Additional details on the methods involved are discussed in chapter three.

As the sites were analyzed in an effort to answer these questions, the findings of this study show that there is a typology of quilting Web sites: i.e., galleries, information portals, and teaching sites. In each type, evidence can be found of the traditional values of quilting communities, though there are changes and circumlocutions that mark an adaptation to the technological restrictions and possibilities of the internet. The findings validate some established theory, and in other places, notably with ELIS, show that established scholarly theories may not fully represent hobbyists' information activities. Serious leisure does not yet address as a field the online hobbyist, and this is one of several gaps in the scholarly literature that this research addresses. Most importantly, in studying the quilting community through its communications and information structures, the study provides insight into the information sharing practices of hobbyists to better inform LIS theory. By studying an online community through its Web sites and blogs, insight can be gained into how and why communities form, and what role information sharing plays within the community dynamic from the perspective of the information owners, gatherers, and distributors. Virtual quilting communities are particularly interesting to study (as opposed to for example computer gamers or professional associations), because they have a long-established ethic of cooperation and communication in real-time/physical life. How that

community dynamic is affected by the technology, distance, and anonymity of the internet can provide insight into current theories about the possibilities for interface design and its role in supporting and fostering working life information sharing within professional communities.

Chapter Two – Literature Review

The research problem for this study fits within the theoretical contexts of serious leisure and everyday life information seeking. A third component is the impact of interface design on computer mediated communication. From a Humanities Computing perspective, and from the perspective of interface design, internet technology and the evolving social mores of online communities will affect the creation and content of quilting hobby sites. In pulling these three research areas together as a background context for the research problem, there is a gap in current research for which this project provides new information and a fresh perspective.

Everyday Life Information Seeking/ ELIS

When people search for information to satisfy curiosity, to meet a need for information that will inform a decision that affects private life, or to aid in acquiring a desired personal skill, these are examples of everyday life information seeking, or ELIS. The pursuit of knowledge in service of hobbies or self-learning is part of ELIS, and is included in the ELIS model of information behaviour as a component of "way of life".

Reijo Savolainen, the founder of ELIS theory, writes that the ELIS model was developed in order to "elaborate the role of social and cultural factors that affect people's way of preferring and using information sources in everyday settings" (Savolainen 2005, 143), thereby addressing the social and psychological elements in the information seeking of daily life. The theory states that our information seeking is determined by "mastery of life", "way of life", and the social, cultural, and cognitive capital we can offer in relation to the capital owned by others. "Mastery of life" refers to how we manage the nuts and bolts of daily life, like finding the best car insurance or the quickest commute to work. "Way of life" deals with the more discretionary, creative side of life, such as time allocation and hobbies. ELIS theory states that information seeking is not just about "mastery of life" problem solving, but that information seeking is significantly impacted by "way of life" concerns. Further, it postulates that the social, cultural, and cognitive capital we own, and how it measures in relation to that of others,

determines our life's conditions though way of life and mastery of life (146). These three components, and their interactions, together underpin all of ELIS theory.

Savolainen wrote in 1995 that the information seeking that takes place outside of a work/professional context deserves equal attention to that given to job-related information needs. He noted that "practices of nonwork information seeking may be associated with a plethora of important activities not related to professional tasks, for example, health care and hobbies" (259). Savolainen's ELIS claims that there is a "cognitive order" which people have in order to establish and maintain their personal states of normalcy, and that this order is established because it holds meaning for them. Finding individual, cognitive meaning in relation to the hobby of quilting is one of the purposes of the research undertaken in this study. ELIS builds on values, conceptions, and the current phase/stage of individual life, along with the social, cognitive capital owned by the individual: all of these feed into what seem to be snap judgments or habits of information seeking in daily life, as the individual makes his/her characteristic choices. Once we understand those elements and how they build into an individual's response to an information need, their actions and information strategies become logical (Savolainen 1995, 267).

Savolainen's ELIS, since it was first developed, has been taken by the LIS field and used extensively as way to link everyday information behaviours to scholarly theory. This adoption by the LIS community, however, has not always taken into account the roots of ELIS, its model of information behaviour, or linked new findings back to them, in the interests of developing the model. Thus there is sometimes a dichotomy between the two (Given 2002).

A fundamental aspect of this non-Savolainen approach to ELIS is its strong emphasis on how the model accounts for social discourse as an integral part of information behaviours. Pamela McKenzie's (2003) study of how pregnant women used social practices to meet their individual needs perfectly illustrates the value of ELIS' focus on information seeking as social practice, as opposed to the information seeking model as a strictly internal, solitary psychological practice. Her study describes the women recruiting family and friends; making contacts with other people in information neighbourhoods; and befriending potential sources of information, like an ultrasound technician, all with a view to meeting their information needs. McKenzie's article also discusses the voluntary referrals people make to others they know are seeking information. These people who make voluntary referrals to information are

what she terms "proxy searchers" (36). Maija-Leena Huotari and Elfreda Chatman wrote an article in 2001 to describe how social network theory and small-world theory work as components of ELIS theory, further elaborating how social process is intrinsically linked to information behaviours. The article deals with the development of information, along with the dissemination and use of information within formal professional (and semi-formal) organizations, reviewing how "insiders" create norms and behaviours which then inform the normative behaviours of the group with relation to information behaviours, which relates to social capital, reciprocity, etc.

ELIS, Hobbyists, and the Virtual Environment

Building on Jean Lave and Etienne Wenger's theory of learning as identity, "small worlds" (a term that refers to small communities of interest) work because each small world "allows persons to share a similar cultural and intellectual space". People come together in communities of interest because they have similar values in terms of information and behaviours around the sharing of information (Huotari and Chatman 2001, 352). The social context of information behaviours in communities of interest supports the theory that learning is not only about facts, but also about taking one's place within a group as an identity is formed, whether that be as a quilter or a car mechanic, for example (Lave and Wenger 1991).

The concepts and "philosophy" of ELIS is focused on self-learning and pleasure, or leisure-based informational activities. Informational techniques include the identification of information neighborhoods to be scanned and the passive reception of information, among others (McKenzie 2003). Such techniques are easily transferred and applied when using the internet.

Use of the internet is a daily and practicable part of everyday life information seeking for many people in those parts of the world, such as Canada and the United States, where computers have become ubiquitous. Those engaging in ELIS online turn to the internet because of its speed, its ubiquity, and low cost, though the people searching for information may range in their reactions from enthusiasm to a distinctly critical stance of what is found when online (Savolainen 2004). Some of this discontent could be experienced by those in pursuit of quilting information from hobby sites.

Any superficial examination of hobby quilting sites quickly demonstrates that for the most part these site owners are amateurs at Web site design and technology, struggling to articulate and publish their creative knowledge and experiences in a new medium. On the other hand, those hobbyists creating web content are presumably

satisfied with what they have posted, as it reflects their comprehension and skills as they try to present the best material they can in a public arena. From the perspective of this study, it is hoped that the technological challenges will have resulted, not in confusion, but rather in a stripping down to the essentials—what information is truly key for the site to hold meaning for both the author and the visitor, or in other words, in significant information structures (Borgman 1999). In this study, the active development of information for collaborative use, and the planning and anticipation of its use, is what is of most interest, since it is assumed that site owners will be looking to engage with visitors actively searching for specific information.

A notable feature of these information structures is the socializing aspects of the quilting sites. McKenzie's belief (2003) that everyday life information seeking is less about psychological models of information behaviour and more about the social aspects of information behaviours is supported by many of the information behaviours amongst quilters. But in coming online in order to pursue an interest, everyday life information seeking behaviours are changed by the technology and technological environment itself (Hektor 2003). Strategies such as site monitoring, emailing tips and hyperlinks, and engaging in social discourse through message boards and Web site creation, all affect the strategies that have been traditionally used, such as quilting bees or quilting classes at a local fabric shop; but the traditional spirit of friendliness and helpfulness still makes itself felt through the restrictions of technology.

The Application of ELIS to This Study

ELIS literature indicates that there are some gaps in its research that need to be filled. Savolainen suggests the ELIS model could be further developed in specific ways, namely by an investigation into the discourse of people positioning themselves as seekers and users of information when dealing with way of life and mastery of life issues, and how that could further develop ELIS theory from a social constructionist viewpoint (2005, 146). Huotari and Chatman call for further research into the activities around joint value creation in communities, and suggest that the variations in social contexts and how they impact knowledge processes would be worth investigating (2001). Although in this instance they are only speaking of the value of understanding knowledge based network organizations within professional contexts, it is a contention of this thesis that the activities of nonprofessional networks of information have significant contributions to make the development of theory.

ELIS generally focuses on the seeker rather than the giver of information. This study largely examines the information behaviours of information givers, the site owners. The applicability of ELIS to those hobbyists who are not, at first glance, seeking information but, rather, providing it is:

1. The sociability of ELIS theory;
2. That it addresses the information strategies of hobbyists in leisure time;
3. That it addresses the 'information baggage' an individual brings to an information strategy, by referencing the individual's expectations, norms, attitudes, and how they are influenced by their communities and past experiences.

This social nature, or the social practices, of ELIS is pertinent to the quilting sites reviewed in this study. These site owners are many times acting not only as proxy searchers, but mapping for others the end results of their own information-seeking practices. The Web sites are frequently information neighbourhoods where multiple information sources are networked together, and quilters are encouraged to participate in an exchange of information. All the information gathered which is perceived as valuable, and many of the online social practices, are written down and assembled for others to examine, in anticipation of the information needs of other hobbyists.

Serious Leisure

Leisure studies, like ELIS, is interested in hobbyists of all kinds and how they pursue their interests, but it differs from ELIS in that it exclusively deals with leisure behaviours. Robert Stebbins, the founder of leisure studies, works cooperatively from within sociology with researchers in many other scholarly fields. He has named hobbyists and amateurs as taking part in "serious leisure", and has called for researchers in all fields to study and learn from this neglected but information-rich field of study.

Stebbins' "serious leisure" taxonomy has two classifications of hobbyists pertinent to quilters: 1) makers and tinkerers, and 2) liberal arts hobbyists. Within certain realms, such as that of hobby quilting, these two categories seem to blur into each other; this was acknowledged by Jenna Hartel, an LIS scholar, who studied amateur gourmet cooks within a leisure studies-based research project (2003). For the purposes of this study, the creators of these hobby quilting sites will be defined as liberal arts hobbyists for the reasons that follow.

The need to develop and share information beyond the creation of an object puts quilters who create hobby Web sites into a class of practitioners who value knowledge as holding value comparative to the object created (Stebbins 2001). This is exemplified by the many Web site owners who, presenting themselves as subject experts, include information about their particular form of quilting's history and provide alternate ways to learn about the craft. Because of the site creators' need to "externalize" their knowledge, these individuals can be referred to as liberal arts hobbyists (Stebbins 1994, 179). Stebbins has repeatedly noted that liberal arts hobbyists enjoy expressing knowledge (Stebbins 2001, 29). This need to externalize and express knowledge certainly makes the creators of hobby quilting sites not only practitioners of serious leisure, but places them as liberal arts hobbyists rather than just makers. This classification is seconded by Marybeth Stalp, a serious leisure scholar with a research interest in quilting (2006). An additional factor that categorizes the quilter-owners of the sites reviewed in this study as serious leisure, rather than casual leisure practitioners, is the emotional reactions they have to their craft. Stebbins has created a scale of four terms to describe, from least involved to most involved, people who engage in leisure activity: fun, enjoyable, satisfying, and fulfilling (2004). Fulfillment is a more profound term that describes serial accomplishments over time, deep emotional satisfaction, and gratification in the pursuit and accomplishment of the activity, and indicates serious leisure activity.

Within this sociological framework of serious leisure, the Web sites produced by these hobbyists can also come under the heading of civil labour, as defined by Chris Rojek, another leisure studies researcher (2002). This term, civil labour, which encompasses work done by the individual for society's larger good, indicates the voluntary aspect of these Web sites. Altruism presumably figures large in the motivations of the Web site creators, but there are a variety of motivations declared on these sites, some of which seem to reflect the standard reasons cited by volunteers for doing their community volunteer work, namely wanting to help a cause and wanting to support a community (Statistics Canada 2004, 9), but this requires further study.

Quilting as Leisure

Quilting as a leisure activity is marked in certain ways. It has traditionally been the province of women, not of men. This gender division reflects the "domestic masculinity" of the 19th and 20th centuries, which called for men to embrace artisanal roles with heavy tools and thus assert their masculine identity. By asserting male

competence within a narrowly defined domestic sphere, the 'traditional' domestic male skills became entrenched in the social consciousness. Quilting, involving as it did a needle, thread, and soft furnishings, was emphatically not part of the male role, but rather the female role (Gelber 1997). It has only been very recently that male quilters have begun to emerge and take a place within quilting culture, which has historically been, and is essentially still is, a female gendered domain (Stalp 2006).

As a feminine domain, quilting has taken on certain values and touch points that define the craft beyond the simple piecing of fabric into a bedcovering. Women quilters quilt as a creative act, first and foremost, but they also incorporate the traditional family unit's values and priorities into their craft, and negotiate with those values for time, space, and money to pursue quilting. As part of that familial involvement and emphasis on family, quilts are typically made for family and friends, in order to express and affirm emotional ties (Stalp 2006). This focus around the quilt objects on family, the emphasis on family relationships and friendships, and the frequency with which women share quilting within generations of their families is also termed 'generativity' (Piercy and Cheek 2004).

Quilting as a socio-cultural activity has many dimensions, including the gendered role it frequently plays, its historic aspects, the link women feel to their history and ancestors, and the familial ties it seems to develop and affirm (Stalp 2001). The quilts themselves, with their regional variation in pattern and style, reflect historic trends identifiable to the trained eye, carrying information and messages about the creators, though some quilts do not need a trained eye to transmit information. For example, "picture quilts" of the 19th century depicted vignettes from the daily lives of their creators, notifying anyone who saw them where and when the quilter came from, and frequently explaining for what purpose the quilt was made.

Revolving around informational and socio-cultural practices, an essential part of quilting is the "generativity", or the attempt to link generations not only through the creation of objects but also the teaching of skills and family history through the quilts themselves (Piercy and Cheek 2004). This "generativity" means that quilters as a group are notably eager to teach and share knowledge with others, from special quilting patterns and tips on good fabric sources, to such seemingly disconnected items as recipes and other information otherwise associated with homemaking and nurturing. Quilters, therefore, are a particularly rich and communicative leisure group to study.

The Application of Serious Leisure to This Study

As mentioned previously, the leisure studies field has called for scholars outside of sociology to bring other perspectives to its field of research. To date, only one library and information studies scholar, Jenna Hartel, has published within the serious leisure framework. Hartel (2003) herself has called for the examination of informational practices attached to leisure activities, pointing out that the bias of LIS research toward academic contexts needs to shift toward richer and unexplored fields outside of academia that at times contradict long-held beliefs about information behaviours. Very few academics have yet taken up that challenge, yet this remains a growing, vital, and interesting area in which to examine information behaviours (238).

In an example of LIS scholars who have taken up Hartel's challenge to examine informational practices related to leisure activities outside academia, a recently published qualitative study of a library-sponsored knitting group of twelve women discusses how the women's crafts carry meaning, and the belief expressed among these crafters that free sharing of information is an obligation tied to gender as well as the craft itself (Prigoda and McKenzie 2007, 106). Through observational study and interviews, the researchers also examine the knitting group as a place for "collectivist information behaviours" (90). Clearly, there are rich informational practices at work in such relaxed, collaborative, creative community settings that ought to be explored. The objects created in such settings, such as knitted and quilted items, bring with them informational practices that cross the boundaries of specific crafts.

These hobby sites can be assumed to be designed to be clearly understood and informational in nature, as is assumed for most nonfiction pages on the web (Haas and Gram 2000, 182). It can also be taken as a given that the language and technology of these sites reflects in some measure the evolution of the online quilting community and its standards for information and technology in the use of message boards, audio, etc. (Burnett et al. 2003).

Serious leisure within an LIS context is not an information theory. Rather, it is "an interdisciplinary construct" that can illuminate many information behaviours and strategies that take place in leisure time (Hartel 2003, 230). Topics such as the one proposed in this paper could be approached and studied from many different angles. As Hartel acknowledges, it is futile to attempt to develop a single model of information seeking across all hobbies and leisure pursuits. Each hobby has its own unique information behaviours (2006). However, the fact that most hobbies have their own

independent vocabularies, classification systems, histories, and communication strategies, such as folklore elements, means that there is tremendous scope for any research done from an LIS perspective.

The mining of online texts for data further means that information structures, where information is pared down to what the writer (web developer) considers the salient points and gives the user his/her "significant structure" (Borgman 1999, 27), are presented to the researcher in an unparalleled opportunity. The researcher can now thoroughly examine, within the context of the larger hobby domain, how the Web site owner has chosen and then mapped information s/he considers important for the purposes of communication. In studying these sites, which are, in many essentials, texts, the dynamics of the virtual communities themselves may be better understood, since texts can create, reflect, and modify meaning (Burnett et al. 2003).

Interface Design and Computer-Mediated Communication in Social Worlds

Hobby quilting Web sites are texts with content valuable for analysis. The civil labour used to create them and the information structures they contain relating to creativity and socialization, along with personal information selected for public audience, is fascinating to study and understand. The nature of this study is interdisciplinary, and this section reflects how the research is placed to touch on multiple scholarly fields. The issues discussed here are of online community, the impact of technology on information delivery, how design can impact virtual community and information, and how LIS' approach to interface design contrasts with that of computing. These are so thoroughly intermingled that they need to be presented together here in one section.

Within a humanities computing perspective, personal Web sites such as those to be analyzed in this project have been termed "knowledge repositories", which touches on a philosophical view of content posted to the web. It states that content voluntarily posted is an attempt by the individual to make available and thus preserve his/her knowledge and culture in virtual communities (Rennie and Mason 2004). By creating these knowledge repositories, the owners of the sites seek to provide a way to preserve and disseminate information through digital technology. That technology, namely the internet, and its impact on communication and the way people think and approach information are viewed, described, and discussed in very different ways in computing and humanities computing as compared to sociology.

Within humanities computing, the creation of such a repository can be referred to as part of what is commonly termed the "gift economy" of the World Wide Web (a term developed and popularized by various computer theorists; see Komito, 1998), in which all users ideally contribute toward creating an informational utopia. Sociologists would term such work "civil labour", or human activity done with the intent to improve society and/or fill a perceived social need without tangible compensation (Rojek 2002, 21). Both fields, however, recognize that computer-mediated communication requires an acknowledgment of the social contracts individuals have begun to build online.

Interface design, from a computing perspective, examines how the structure of an interface and the tools it provides can foster the exchange of information and the development of online communities. By studying virtual information exchange and other online dynamics of communities, it strives to extract principles which it can then apply to the creation of newer and more innovative interfaces. Indices by which success of such interfaces are measured include the numbers of members, the number of interactions between the members, and the rate at which new information is generated by the community. The virtual quilting community, in contrast, is loosely organized and without a single, central online clearinghouse of information which would permit such measurements. Comparison of the quilting community dynamics and how the various site owners have accomplished or ignored the mandates of interface design's factors for a sustainable community provides additional insight into this information group.

Community and Online Texts

Information behaviour, at its most fundamental level, is all about how people need, seek, manage, give, and use information in different contexts (Fisher, Erdelez, and McKechnie 2005). Once we go online general informational rules still apply but the technology and the social context alters and slightly skews the rules of non-digital informational behaviour.

Gary Burnett et al.'s (2003) research has suggested that online texts are not merely about the simple transfer of information. Virtual community is created and its individual cultures developed by the texts it creates online. Providing it in a socialized context creates a socially-mediated archive that allows the group to develop a resource beyond the capabilities of any one individual. Linked to Unruh's theory of mediated communication in social worlds, Sherry Turkle's research into social usage of computers (1995; 2004) demonstrates that there is significant evidence to show that

how we use the computer changes the way we think and socialize online as we meet and communicate through the internet, and the "computer person" is no longer a small subset of the population, for "we are all computer people now" (2004, B28).

Those social interactions mediated by the internet are also affecting the quilting objects featured on the hobby sites. There is a view of craft objects that states they are inalienably linked to place. That sense of place gives context to the historic and cultural memories that shape the craft and feed the community that shares ideas and pursues consensus regarding the creation of the craft (Chiappara 1997). Yet there are rapidly growing and evolving communities of craft makers that are linked solely by interest and not by place or traditional definitions of community. An argument has been made that the internet "heralds the dispersal of established cultural institutions and the proliferation of diversity, and it provides a space in which new relations are both necessary and formative of new social networks" (Carroli 1997, 359). This argument requires us to reevaluate our concepts of collaboration and communities of interest, as they exist on the internet, and recognize their changing natures and the dynamics that allow them to grow and flourish as proponents of these interest groups dedicate time, effort, and money for the nebulous reward of educating others. Indeed, the very nature of the internet requires that we critically examine the very concept of "community" and instead place a higher emphasis on the individual acting within the community, recognizing that online communities are hard to define, and are constantly in flux (Komito 1998).

There are numerous studies that have been done to try and analyze and quantify the nature of information exchange within online communities. Gary Burnett (2000) has come up with a typology to describe information behaviours in various online communities as they relate to dynamic communications, such as hostile behaviours, exchanges of information, and the use of neutral language to facilitate online discussion. He recognizes that while the non-interactive "lurkers" who quietly place themselves in promising information neighborhoods make up the majority of online communities' membership, the active community membership will proactively harvest useful information and make it available to other members, or work to develop resources designed to meet the particular needs of the community. The community at large may then take information and collectively direct themselves to begin a group project intended to have an effect within the outside world.

Samples of such free information collected and sometimes archived on the web for use in communities of interest has been found to be of as good a quality as that to be found in commercial databases, disorganized though it may be (Bar-Ilan 2000). This says something about the intent of the information gathers/sharers to be useful and to provide value to those seeking information they, as information holders, possess.

The Impact of Technology Upon Online Information Behaviours

The combination of computer technologies, leisure pursuits, and altered communication with online information all have notable impacts on information behaviours that have not yet been studied. Within Computer Mediated Communication (CMC) research there is little consensus as to how media influence user behaviours, although computer scientists have recognized for some time that human behaviour, including information behaviours and community dynamics, is altered by technology and the online environment (Norman 1991). Adaptive structuration, a CMC theory of online communication, states that communication through technological aids can only be understood when the cultural context is observed for the group whose communication is being studied (Kim 2000). Additional factors include the searcher's previous history and the need for the information: is it professionally required, or is it something to help a personal quest?

Jarkko Kari and Reijo Savolainen (2007) recently published an article investigating how internet users pursue their quests for personal development by utilizing information online. It was found that self-development processes carry with them their own information behaviours which are additionally impacted by the context of the user. Kari and Savolainen's study states that understanding the context of information seeking is essential for LIS scholarly studies, and they add that there has been very little research done on how information processes relate to context.

Because the technology of the web mediates any communication taking place from computer to computer, it can shape electronic dialogue and interaction. Some quilting hobbyists struggle to master basic html in an effort to put up their Web sites, and are restricted in what they can accomplish due to their ignorance of computers and computer programming. Some site owners hire a site developer to assist them, delegating that person to accomplish or improve upon the vision the site owner has for the Web site. Others bypass the problem altogether by using what has in the past couple of years become ubiquitous, a standard blog. If the quilter uses a blog, user-friendly formats for posting content to the web mean that there is no requirement that

the person posting understand computer languages; however, the format of the blog itself, the framework it offers, can impose certain limits or conventions upon the blogger. In each of these circumstances, the Web site owner has information s/he wants to communicate to the site user, and as a result the content that we find on the site reflects what the site owner considers to be valuable and useful to the quilting community, including both current and potential quilters and quilt aficionados.

LIS and Interface Design

Library and information studies' scholarly literature covers a huge amount of territory when it comes to interfaces and interface design, which is only to be expected since the field looks at interfaces as a means to enhancing—or obstructing—information flow. An overview of recently published literature in this area contains opinion pieces philosophizing about the information needs of the public (e.g., Quint 2007), studies examining the information needs of special groups in relation to interface design (e.g., Bilal and Bachir 2007; Hawthorn 2007), and recent developments and directions in OPAC (online public access catalogue) interface design (Breeding 2007), and more. All the articles treat interfaces as a means to better support information behaviours in a variety of contexts, fulfilling the professional mandate of librarians to connect people with information.

Also within the literature is a discussion of specific elements within interface design that can be created or adapted to improve the connection between people and information. These are examined in order to improve user searches and discovery of quality information, and include such features as tracking of search histories (Komlodi, Marchionini, and Soergel 2007), ways to improve searching/browsing features (Tang 2007), and improving interfaces to better support user formulation of search strategies (Wildemuth 2006). This professional focus on information access, however, means that the literature touches relatively infrequently upon online communities and how interface design relates to them. It also focuses upon the seeker, rather than the builder-provider, of information.

Interface Design's Role in Building Online Community

In recognizing what Web site owners have done online to accomplish their communication needs, which are discussed in chapter four, we also need to acknowledge that there is a large body of research which discusses online communication from the perspective of interface designers. This research investigates what can be done in support of online communities to foster information sharing. It also

argues that interface design can be tailored to the needs of online communities and that specific elements of interface design can encourage and support the development of online communities in terms of active, contributing membership.

Online communities are "a pattern of mutual engagement, joint enterprise and shared repertoire" (Googins, Laffey, and Tsai 2007, 209). They are also groups of individuals linked by a "common goal and understanding" (Malhotra, Gosian, and Hars 1997, 63). Some research studies define them as geographically linked "communities of practice" in the Lave and Wenger tradition (Fisher and Bennion 2005; Lave and Wenger 1991). There are scholars studying online communities who argue that physical geography is a determinant of the success of a digital community—that physical contact improves the quality of the virtual (Fisher and Bennion 2005; Baker and Ward 2002). In the instance of the quilting Web sites studied here, however, it is expected in most cases that the members of the community will be geographically dispersed and may never meet face to face. This makes the reliance on shared values and goals as hobbyists that much more critical (as in Malhotra, Gosian, and Hars' 1997 definition). Through that common understanding various people will come together online to discuss and learn and celebrate common interests with others who share the same passions.

Within various communities of interest, when such interactions are made possible through certain interfaces, the community members are able to collaborate and cooperate within the group to meet goals of various kinds. When this occurs, the group members who are actively engaged within the community begin to break themselves into sub-groups of interest within the larger community as people begin to cluster around topics of specific interest to them. They also begin to assign themselves roles, such as posting material for others to read, moderating discussion, and rating resources. In all of these activities, the community meets ongoing information needs, which is what an online community must do in order to survive (Baker and Ward 2002). Interface design literature shows those elements such as interactivity, the acquisition and building of social capital, and communication tools all foster collaboration and cooperation on the part of the user within online communities, in which collaboration, or community work ethic, is the major factor in the life and vitality of an online site (Baker and Ward 2002, 217).

Features of Interface Design That Encourage Growth of Online Communities

Interactivity in a site is a determinant of a site's success. Research has shown that the higher the interactivity, the higher the number of users of the site (Teo et al. 2003; Malhotra, Gosian, and Hars 1997). Interactive features of Web sites shown to promote user traffic include user control features, such as adjusting media controls and page sequences (Teo et al. 2003, 287); the ability to contribute content (Malhotra, Gosian, and Hars 1997, 63); and customizable features, which allow the site users to adapt their view of the site to reflect their interests and self-assigned roles (Benford et al. 2001, 83).

Social capital is another important element in the fostering of a community work ethic. Social capital describes the value perceived by the group of an individual in relation to the group. It is built by individuals within a group context as they make contributions to benefit the group without necessarily receiving any compensation other than that of recognition. Social capital is valuable to communities because when individuals are committed to the building of their social capital, they are more likely to act in cooperative, productive ways within the group to promote collective interests (Erickson and Kellogg 2000; Chewar, McCrickard, and Carroll 2005). An example of this is someone who volunteers to test freeware prototypes as opposed to someone who merely downloads the product. One is invested in the end product and is collaborating with other members of the community. The anonymous downloader is content to reap the benefits of the work, and remains anonymous, while the volunteer tester will acquire social capital within the community as his or her reputation and name become known.

Interface design can encourage users to build social capital through identity, textual permanence, and viewing activity levels. A stable online identity permits the building of reputation. Textual permanence (such as storing articles in community archives) means that contributors perceive their contributions to be valued and means that contributors are more likely to give thought to the content they contribute. Viewing activity levels, or a related term, "social translucence", means that there is a way for contributors to mark how many people have reviewed their content or posted similar content, and contributors can track discussion around their contributions (Erickson and Kellogg 2000; Chewar, McCrickard, and Carroll 2005). Usage of blog statistics to track and then inform blog visitors of the most popular posts made on a site would be one example of this.

Communication tools is the third category in which interface design can support the work and contributions of an active community, thus contributing to the community's longevity and success. In order to have community cooperation, it is essential that community members have the ability to coordinate effort and understanding with other members. Coordination of activities which allows for the exchange of pleasantries, improving the quality of content contribution, synchronous and asynchronous communications, and searchable archives are all features of good quality online communication tools.

Typical coordination elements of online communication include: logistics, pleasantries, and idea generation (Googins, Laffey, and Tsai 2007, 213-215). Logistics encompasses the practicalities: how will we exchange information, and when? Pleasantries are those small comments and gestures we make in face to face conversations that grease communication by producing feelings of friendliness and acceptance, and that are still needed online—"I like your idea" or, "You did a great job with that". Idea generation can refer to ways in which members initiate new projects, come up with ideas for community involvement, or share thoughts about improving the site or the community.

Asynchronous and synchronous tools are both of use in highly active online communities. The point of these tools is that membership needs to maintain a conversational thread or sequential structure. Such continuity is necessary in an online community, when users are leaving and resuming conversations all the time, but still need to communicate about issues like tool negotiation (e.g., how will we use this new forum? What are the rules around using it?). It also encourages the pleasantries described above (Erickson and Kellogg 2000; Googins, Laffey, and Tsai 2007). Moderated and un-moderated discussion each have their own strengths, but moderated discussion, or even just the perception of the existence of a moderator, has been shown to cut down considerably on "garbage postings" and contribute to civil discourse (Malhotra, Gosian, and Hars 1997).

The Application of Interface Design to This Study

Of course, the most carefully designed interface features will not be of any use if community members are not internally motivated to share information. Those people who feel competent and confident in their knowledge and ability to contribute information that will be useful to the group, and/or who feel pleasure in sharing knowledge and helping others, are the most motivated to contribute to online resources

for communities (Hsiu-Fen 2007). A combination of these extrinsic and intrinsic motivations is needed to fuel the collaborative environment that is so essential to the building of vibrant online communities. This study examines why hobbyists are creating online information repositories through their expressed motivations within the sites.

It is a necessary condition for virtual communities that they establish unique identities based on unmet information needs. Once those needs are met, more immediately needs to be done, as the ongoing demand for new information needs must be satisfied, hopefully in a unique way by the virtual community. Information is the life force of virtual communities (Baker and Ward 2002, 217), and they rely upon its circulation as much as the human body relies upon the circulation of blood for survival. Because hobbyists are willing to post materials during their leisure time, information is being circulated on the internet that helps keep the quilting community growing and viable.

Research into interface design is applicable to this research study in that the project was begun in the belief that the practical application of the research could be that it would offer some insight into how to tap into employee knowledge and expertise in professional work settings, and encourage the vital sharing and archiving of that knowledge in electronic databases in order to meet ongoing information needs. The studies reviewed here, many of which are set within professional settings, give context to the findings and conclusions amongst the quilting hobbyist online community.

The Gap in the Literature

The articles outlined in the literature review give a cumulative picture of a fertile ground not yet mined for insights into information behaviours. They offer some possibilities as to where the research may lead, and a context in which hobby Web sites can be profitably studied.

ELIS theory, as indicated by Savolainen (1995, 2005) and Huotari and Chatman (2001), still needs development. Studies examining the principles and information behaviours of everyday life information seeking within hobby and leisure contexts have been called for as a way to further develop the ELIS model.

LIS research into leisure studies, as indicated by Hartel (2006) in reporting her domain analysis research into hobbyist gourmet cooking practices, is significant because it examines ELIS behaviours that are rich in distinct informational practices that are frequently understudied by LIS scholars. It is a field highly pertinent to the millions of people who engage in serious leisure, and it merits study and examination.

This is a very new area, as evidenced by the literature, of which very little reviews serious leisure practices online, and this mandates research. The online texts which are proposed here as a subject of research offer tangible clues to how this group of hobbyists make sense of their craft in terms of practical and cultural knowledge (Borgman 1999), as an entrée to social worlds (Unruh 1980), and as an act of civil labour to help novices to the craft and to preserve knowledge (Rojek 2002).

The impact of empathic behaviours on information sharing/seeking in online communities, namely that of emotional support, is of particular interest as it relates to the quilting community, as described above. In 2000, Burnett called for additional research connecting information to social-emotional activities on the internet. While there are scholars investigating the connection between emotion and information behaviour (see Nahl and Bilal 2007), scholarly research into the relationship between emotion and information behaviour on the internet is still scarce, as is discussion regarding personal development activities and their attendant information behaviours (Kari and Savolainen 2007), which suggests another profitable area to be examined by this study.

Interface design has analyzed ways in which online communities can be prompted and encouraged to contribute information and thereby make the communities viable and dynamic. This research, although it does not always speak directly to the informational practices of hobbyists' virtual communities, provides a necessary background for the findings of this study. The emphasis of LIS on interface design as a means to directing users to information, combined with the LIS neglect of developers and builders of information repositories and how interface design can be used in the community-building ways (as described in the computing literature) also mandate further research.

Chapter Three – Method

Hobby quilting Web sites are a specific kind of text: public yet personal, and targeted to a limited audience. The function of the texts as an expression of personal enthusiasm and their role in educating and encouraging site visitors as hobby practitioners is affected not only by the medium of the internet, but also by its specifically public function.

In choosing the best method of research for this project, the nature of the texts, their environment, and the aims of the research questions were taken into account. The research questions and the field of hobby quilting informed the sampling criteria

and the analysis methods. Domain analysis was chosen for the way that it addresses social information behaviours in communities, while a grounded theory approach was used to inform the emergent design of the project.

Quilting sites as a part of an online community of interest were chosen for this project, recognizing that both theories of domain analysis and serious leisure studies are directly linked to subject knowledge at the social level. As Birger Hjørland, and Hanne Albrechtsen (1995) state, domain analysis is best used in LIS when we study "knowledge-domains" as whole communities with their own discourse and communication patterns. They go on to point out that the concrete developments or objects of these knowledge domains reflect "knowledge organization, structure, cooperation patterns, language and communications forms, information systems, and relevance criteria" (400). Therefore, each Web site or blog was approached as a complete information structure.

The data on the sites were collected and analyzed to help develop what Carol Palmer refers to as "extended models of domain dynamics" (1999, 1140). The data were used to identify possible characteristics in the information features of online quilting sites, possible themes in the information structuring of the sites, and to answer additional research questions as to whether the information strategies in use within the sites support or contradict theories within ELIS.

How the Research Questions Informed the Method

The research questions going into the study, which informed the sampling criteria, the definitions and limits framing the research, and the analysis methods, were these:

1. How are aspects of personal creativity (meaning the ability to produce or design something new out of one's own experience, knowledge, and spirit, for one's own pleasure and aesthetic satisfaction) represented on quilting Web sites? (Sample aspects were photographs of completed quilts, discussion of how the quilter feels about making the quilts, efforts to make the site represent his/her feelings about quilting);
2. What motivations to post content are given on the sites by the site owners? Does the content of the site reflect those motivations? (Statements like "I've created this site because there is a shortage of information about...." or, "I've made this Web site so that other beginning quilters can find good resources");

3. What strategies are used to encourage the viewer to participate in quilting? (e.g., supportive language, offers of assistance, posting a personal email address); and,
4. Are there communication strategies that appear as themes across the sites investigated that support or contradict everyday life information seeking (ELIS) theories of information behaviours? For example, how are social practices a part of online quilting sources? Is other, non-quilting information associated with the quilting-related communications, such as recipes or family history?

The study used a form of textual analysis, informed by domain analysis methodology. The texts address the research questions as their content was analyzed in the following ways:

- Exploration of how the text represented various aspects of personal creativity;
- Extraction and analysis of motivational statements and statements of personal creativity;
- Investigation of support and encouragement in relation to teaching tools; and,
- Analysis of communication strategies in support of community building.

In support of this analysis method, any referenced information sources or publications (such as newsletters) were identified, teaching elements were reviewed, and community discourse was studied for notable elements. Grounded theory was used as the study progressed to inform the sampling, the analysis, and the conclusions drawn.

Quilts, Quilters, and Quilting Sites – Identifying Boundaries for the Study

Quilting Web sites eligible to be included in this study were defined as hobby quilting sites created for personal, rather than purely commercial, reasons. Some commercial activity was allowed, such as the selling of ad space, if it was done to support the existence of the site. Each site had to be dedicated to quilting in order to be included, but these could have references to other subjects as long as the subject of quilts and quilting was the main focus of the content.

The term "quilt" has been given a very specific definition for the purposes of this study. This was necessary because the term "quilt" embraces a wide range of objects, including political statements, art pieces, antiques, and bed coverings. There are

quilters who create digital representations of a quilt, without any roots in a physical object or any intent to create an object, since they find aesthetic satisfaction in the quilt design alone. The quilting activities around the creation of these objects are correspondingly diverse. As a result, it became necessary in the interests of demarcating the limits of the project, to decide what would be included in the research.

Similarly, "quilting" is defined for the purposes of this study as the act of creation of a real object, made from textiles, with the functionality of a traditional quilt: to keep people warm, or alternatively to be used in home decoration as an art quilt that is also a homemade object. Cyber-quilts, quilts designed to support a cause (e.g., AIDS awareness), or any other real or electronic object labeled "quilt" without the affordance of home use is not, for the purposes of this project, a quilt, nor are the people who make them "quilters"; for this project, "quilters" were defined as those people who create quilts for decoration and comfort chiefly within the home.

These definitions then place quilting within Craft and not Art (Greenhalgh 2003). This definition aligns itself with Bruce Metcalf's: that a quilt is craft and not art. Art is conceptually open and does not necessarily place any importance on the skill with which something is made. Craft, as reflected in this project's definition, is about chiefly handmade objects that are valued not only for the skill with which they are made, but also for the ties to the medium and the history of the object (Metcalf 2002).

Data Collection

Data collection began in October of 2007 and finished in March of 2008. Twenty-five Web sites and blogs were collected according to the identification process outlined previously. All the materials studied resided in the public domain and only that content made publicly available (i.e., where no memberships or passwords were required to view content) was examined.

Sites for the study sample were identified through purposeful sampling. The plan for sample site identification was to find the most highly trafficked/publicized sites as discovered through major search engines. From recommended links discovered in that "starter" set of Web sites, additional sites would be identified that supplied elements of motivation and creativity for examination, as identified in the sampling criteria. This snowball sampling started with Canadian quilting rings (Web rings of linked sites that focus on quilting) and the *World Wide Quilting Page*.

Quilting Web rings offer a clean and efficient way to start locating various kinds of quilting sites. The Canadian Quilters Ring and the other quilting rings identified by

the *dmoz open directory* project offered a way to locate sites geographically or by quilting type, such as log cabin quilts. The *World Wide Quilting Page* has been on the Web since 1994 and is a well-known, mammoth, but poorly designed resource for quilters on the web. It offers links to other sites, patterns, and a multitude of recommended resources.

Quilting guild pages, quilting rings, and major search engines continued to be used when gaps in the sampling criteria could not be met by snowball sampling. Maximum variation sampling was used, which led to a final sample of twenty-five sites, at which point redundancy began, and saturation was reached (Lincoln and Guba, 1985, 235). In keeping with the grounded theory approach, notes were kept by the researcher during the data collection process of impressions and developing theories based on the findings being accumulated.

Visuals and illustrations for the thesis were drawn from those sites whose owners kindly gave copyright permission for publication of images from their sites in this thesis. See individual figure notes for details.

The guidelines for the research included a geographical limitation, as well. Only the sites of Canadian and American quilters were included in the sample, in the belief that quilts from these countries and their respective quilt cultures emerge from the same "pioneer" traditions, tied by language, and that the availability of quilting materials and resources, such as magazines at bookstores and patterns at quilting shops would be similar. This geographic limitation on the Web site owners was the result of reasoning that as there has historically been a similar quilting culture within the two countries, there will be a similar online quilting culture between the two.

In order to secure a broad representation of the different quilting hobby sites on the Web, a purposeful, maximum variation sampling technique was used (Leedy and Ormrod 2005). Sampling criteria included elements that addressed quilter demographics, quilter discourse, and site features.

The criteria for the study stating that only sites with owners in the USA and Canada, and that only hobby quilters would be included, set certain limitations on the demographics of the quilters. However, two specific demographic elements were added as sampling criteria for language and gender. French quilters were sought out in order to represent Canada's two official languages; and male hobby quilters were sought out in order to represent an unusual yet highly visible minority in the feminized quilting world:

1. French language sites;
2. Male quilters.

Discourse elements were identified in order to secure data samples that would speak to the research questions. The research questions asked about motivation, creativity, and community, and sampling elements identified each of these issues. The three approaches of domain analysis: bibliometric, epistemological, and discourse, informed the development of additional criteria:

3. Images of personally created quilts, with commentary;
4. Site that links other leisure interests of site owner with the discussion/teaching of quilting;
5. Historical background of quilting presented;
6. Non-pioneer-tradition quilt form, such as Hawaiian quilting v. Baltimore Album;
7. Discussion of motivation to create site;
8. Discussion around "generativity";
9. Socializing mechanisms to build quilting communities;
10. Free public use patterns;
11. Tutorials: visuals, audio/ video, offer of personal assistance;
12. Citation of other sources, such as print, as resources to the quilter or sources of quilting information for the site owner.

Site features were also addressed by the sampling criteria. The intent of these criteria was to ensure that a range of sites were examined, with a variety of technical features and different life spans:

13. Web 2.0 tools: message boards, blog, wiki, etc;
14. A long-term site (available more than 10 years);
15. A short-term site (established within the last year);
16. Site where the site developer is different than the content developer.

At the start of the collection process, those sites that contained any type of commercial activity other than advertising or Amazon account recommendations were strictly excluded. Part way through the process, however, it was realized that this exclusion neglected a subset of hobby quilters who will create a free/hobby site with the idea that it might be a way for them to engage in cottage industry through such things as "etsy" accounts (a site that allows handcrafters to post tagged images and prices for their goods, and link the account back to the crafters' Web sites and blogs;

The Golden Thimble links to such an account). As a result, sites with a small commercial element were added as the seventeenth sampling criterion:

17. Commercial elements.

Another realization partway through the research was that the study needed to incorporate blogs as well as Web sites. It became apparent that the number of new quilting Web sites created in the past two years was significantly less than the number of quilting blogs now available on the web, and that as a result the Web sites available might meet all the sampling criteria. More quilters are now writing blogs rather than creating Web sites, unless there is a specific group purpose for the site, as will be shown in the findings. As a result, a number of blogs were added, and the inclusion of these blogs enabled the study to meet all of its original sampling criteria.

Data Analysis

Beyond the bare sampling criteria, elements within the Web sites needed to be identified that in some way responded to the research questions. As part of the analysis of the sites, the following elements were identified and extracted:

1. Motivation
 - a. Discussions of motivation/ motivating factors to create the sites by site owner; and
 - b. Socializing mechanisms, such as message boards (with the hypothesis that quilters are eager to promote their craft and motivate others through personal examples online, as they are in real-time interactions),
2. Personal Creativity
 - a. Discussion of personal creativity by site owner;
 - b. Posted samples of personally created quilts;
 - c. Other artifacts of personal creativity presented by site owner;
3. Encouragement of Creativity and Participation in Site Visitors;
 - a. Offers of free designs created by the site owner;
 - b. Tutorials or other attempts to teach any aspect of quilting;
 - c. Recommendations of other quilting resources; and
 - d. Supportive language.

Each of the points enumerated here were used as a content question for analyzing each site identified through the sampling process. Responses to those questions were then extracted and compared across the sampling set. These

categories informed the domain analysis and ensured that the research would in some measure answer the research questions. The use of Microsoft Excel spreadsheets were of great assistance in doing the analysis. While comparisons and searches for patterns were done across the data set, one important part of the analysis was to take each sampling criterion and treat it as a category, in which sub-sets of responses to these questions were compared.

Domain analysis was chosen as the analysis method for this research because it addresses the fact that the nature of information itself varies from one subject to the other and its resultant wide variety of approaches (Hjørland 2002). Domain analysis is a "social paradigm" which tries to understand the external effects and the internal processes of information and communication, in the belief that the best way to understand information behaviour is to observe what takes place within communities of discourse (Hjørland and Albrechtsen 1995, 400). As Jenna Hartel has pointed out, domain analysis' holistic approach is uniquely tailored to the needs of LIS researchers exploring hobbyists and their communities of interest (2003).

Categories to be examined as part of the data analysis were based in three of the eleven approaches to domain analysis identified by Birger Hjørland (2002). These three categories were identified as best addressing the research problem:

1. **Bibliometrical Study:** What documents and other information sources were cited by the site owner? Links to related/recommended craft sites and recommendations of information sources were examined, along with any references to published material.

2. **Epistemology of the Sites:** Asking what information structures were being created: how is information presented? What kind of information is presented? How has the individual creator of the site tied his/her information to that of other members of the community? Teaching elements were studied, namely: tutorial types; use/non-use of technology for teaching, such as audio or video; designs and free patterns available for download; offers of personal assistance; historical information about quilting; and the use of images.

3. **Study of Discourse:** Understanding the socializing aspects of the discipline. First, how they tie to information sharing and preservation, including the notation of any expression of personal motivation to create the site and/or share created works. Second, how discourse supports the formation of community, and the values of the community. What kind of language is being used on the site? What kind of supportive

commentary is being used to encourage others to try quilting? This category includes supportive/ emotional communications; sharing of personal information and history; and expressed motives on the part of site owners for developing the site.

Using the methods of domain analysis while treating each Web site and blog as a text offered insight into issues of online community that are specific to this group. Using grounded theory allowed the research to point out directions and highlight themes in the data as they were collected. The final data sample is twenty-five sites, covering all of the sampling criteria and giving answers to each of the research questions developed at the commencement of the study.

Chapter Four – Findings and Discussion

As the days and years have gone by, I am still humbled by the enormity of this thing we call the World Wide Web and more so by the incredible, giving nature of quilters all around the world. To share seems to be second nature to quilters and this is expressed in the enormous amount of quilting information that is shared and enjoyed by so many on a daily basis. It has been my supreme pleasure to point someone to the information source needed to help them complete a project, make a special gift for a special person, or to help them discover the world of quilting. To all of those wonderful people who have taken a moment to share their knowledge with the world via the Internet.....Thank You!" (Noblin, About Block Central)

The idea for this study was generated in response to personal work life/leisure time experiences on the part of the author. Many companies in many industries are struggling to retain employee knowledge, to see that it is appropriately distributed and available for new employees to access (Brown and Duguid 2001). They spend a great deal of money and time on software and databases to try and capture that knowledge and make it accessible, and yet many employees feel unwilling, for various reasons, to record their knowledge for their employers (Ardichvili, Page, and Wentling 2003). In contrast, quilters and other hobbyists will come home from work at the end of the day and spend their leisure time creating information repositories for public access—and they do it without any expectation of financial reward. The Noblin quote at the beginning of this chapter, from the quilting site *Block Central*, perfectly illustrates the Canadian/American quilting culture and how it is reflected within the online quilting community, as typified by its willingness to share information. This contrast gave rise to

the questions: is there something going on in this hobby community that is fueling a willingness to share and teach? And, can this be transferred to the workplace?

As the data were collected for this study, themes quickly began to emerge. The Web sites contained specific information structures that produced their own typology. The bibliometric, epistemological, and discourse domain analyses of the sites showed that a desire to teach the craft of quilting is the great underlying motivator in the creation of these information repositories. Analysis of various aspects of the sites addressed the research questions. These questions examined how personal creativity informed the creation of the sites; what motivations were expressed for spending time and effort to provide information for others; and, what encouragement was given to current and future practitioners of quilting to participate in the craft. It is hoped that the answers to these questions can inform the creation of information repositories within professional contexts, and that the study in general will fill some of the gaps in scholarly literature for both serious leisure studies and library and information science, specifically ELIS.

Information Structures for Collaboration and Interactivity

As part of the quilting value system, the intent of the Web site creators has clearly been benign. There are no "joke" posts, or posting of deliberately inaccurate information (as far as could be determined). A sincere intent to provide clear and helpful communication seems to be expressed in all of the Web pages and blog posts contained in the data set. Understanding what "useful information" means varies quite a bit from one site to another. Notably, some site owners have few or no images of quilts on their sites (as seen in the *QuiltNet* information resource site) while other site owners have not only multiple images of their own quilts, but slide shows of quilt images from quilt shows they have attended, and links to quilt sites with images for "inspiration" in the creative process. A site owner may consider useful information to mean a focus on the mechanics of making a quilt and the techniques involved, rather than images of completed quilts.

Typology of Quilting Sites

As the results were compiled and the information was examined, almost all of it consisted of text, links, and photographic images. From these three, a typology of quilting sites began to emerge. It was found that there were three types of Web sites created by hobbyists with different purposes: galleries of quilts; teaching techniques and skills; and assemblages of resources. Some sites were hybrids of these

categories. Blog pages contained material from all three categories, and highlighted a category subtheme in some of the Web sites, that of journaling. Hobby sites created with the intent to commercialize possibly make yet another category, which will be discussed later in this chapter.

Galleries

These sites—often containing 'galleries' of images—show multiple examples of the site owner's completed quilts and, occasionally, quilts in progress. See Figure 1 for an example of a gallery page. These galleries give no motivations for their creation, or discussion of what purpose they serve. In the example of the *Laurence Martin* site, we can make some hypotheses thanks to her essay on creativity and her upbringing, that as an artist she wants to show her work to the public and it is a statement of self and identity to do so.

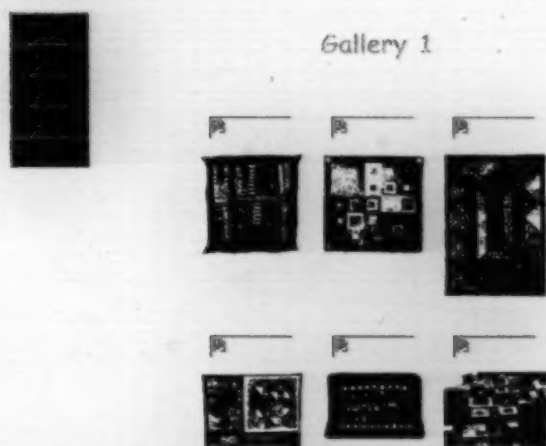


Figure 1: A standard arrangement of a quilt image gallery.

Broken links and images are frequently found in the hobby sites. Gallery1 in *Laurence Martin* <http://www.members.shaw.ca/laurence.martin/2Gallery1.htm>. Permission to use this image granted by Laurence Martin.

Teaching

These sites focus on teaching techniques and skills, usually with basic to moderate difficulty level tutorials. These tutorials can contain images and links to additional resources as well as text. Almost no sites used Web 2.0 tools such as video, tagging, etc. in teaching techniques though in many instances such tools would be useful. As can be seen in Figure 2, free resources such as block patterns are considered important tools to make available to the community.



Figure 3. An example of an unusually clean and stable quilting site. A user-friendly clean (ad-space free) appearance and stable links presented in a simple side panel format as you see here is not the rule in the quilting Web sites. Home page for *Quilt The Atlantic*, <http://www.quilttheatlantic.ca/> (accessed Feb 11, 2008). Permission to use this image has been granted by Karen Henry of Quilt The Atlantic.

Journaling

This chiefly refers to blogs that detail the day to day efforts of quilters and the role that quilt making plays in their lives as decisions are made about projects, trips are made to guild meetings, etc. This journaling aspect is reflected in other places in the Web sites. For example, one woman's weekly newsletter contains information on what her week has been like and how her birthday celebration went (Kuck, The Quilting Clubhouse). On many of the gallery sites quilts are labeled with information regarding the inspiration for the quilt, the techniques used in its construction, the recipient of the quilt, and so on, creating a record of the quilt and the circumstances of its creation.

Commercial

Some hobby sites might one day become a platform from which crafts or quilting materials, such as patterns, can be sold. This may be planned, or serendipitous. Several of the sites in the data set do have commercial elements, such as etsy accounts and sales of patterns. Because the commercial potential of the sites is of no real relation to the research questions, this aspect of the sites was not investigated other than to note that it does exist and may provide motivation to some site owners to create a Web site or blog.

Another commercial aspect of the sites is the selling of ad space. This is a very common practice on the Web sites. Unfortunately, for the site visitor the selling of ad space on the sites may interfere with assimilation of content, to the point where after

viewing multiple sites the ads fatigue the eye (see Figure 2). At times it is difficult to determine what is a link to an ad, and what is genuinely useful content (see Figure 4).



Figure 4. Space for Google ads in a quilting site.

The top blue bar, where a user would expect useful and important information to reside, contains space rented to Google ads. This blog relies on drawing together resources from the World Wide Web rather than original quilting content to provide its information. Most posts contain information about quilting and teaching resources provided by other Web sites and blogs, as seen here. Home page for *Quilting Gallery*, <http://quiltinggallery.com/> (accessed Feb 5, 2008). Permission to use these images has been granted by Michele Foster from Ottawa Ontario. Quilt images from other sites have been blocked out at the request of Michele Foster.

Information noise, other than commercial advertising space, that can detract from the viewer's ability to extract useful content from sites includes the disorganization of page materials, long lists of links that require close reading, broken and moved links, and unrelated or extraneous information. To remain focused on solely on quilting is unusual. Typically site owners include references to other interests, whether or not they are related to the quilting. Some sites, such as *Quilt Ethnic*, have links that change from one page to the next, and content that promises links that are not available, such as an email contact. A cleanly organized site with links that remain constant is the exception (see Figure 3 for such an exception). Much of the information noise and clutter within the sites is due to site abandonment by site owners. Their sites are left to drift within the Web as the links that anchor it to other sources of information are cut one by one. In view of the enormous initial effort put into creating these sites it would be worthwhile to examine why site owners abandon their sites, but this is outside the scope of this research project.

Having a site developer does not seem to impact the Web page information structures that much, except that the two sites with keys/legends to explain codes created for discussing quilts in galleries were both in sites credited with a site developer. The fact that there was not more of a distinction between the site owner developed sites and those with a third party site developer was very surprising. It is very possible that sometimes a site developer was used but not cited. Graphics such as those seen in Figure 4 when used in a site were typically credited as the creation of a third party.

Contrasting the Information Structure Findings with the Literature

In an article written in 2000, Gary Burnett created a typology of online information exchange in order to quantify those information behaviours manifested within virtual communities. While his research deals more with dynamic real-time group information exchange such as postings and chat, and the sites here deal more with static information, it is illuminating to contrast his typology with the materials found within quilting Web pages. Collaborative interactive behaviours still appear in the expressions of empathy, discussions of community provided through other resources, and appreciation expressed by site visitors. Neutral information behaviours are demonstrated with such elements as humorous language and gossip, as described by Burnett, and in an example not discussed in his typology, in the discussion of off-topic items like recipes, which are considered by the quilting community to be somehow appropriately/thematically connected to the teaching and discussion of quilting. In a change from Burnett's typology, non-interactive behaviours are expected by the Web site owners, since most of them make no effort to see that contributions are made by site visitors to the community. The posting of content by site owners is still part of the gift economy, however, since there seems to be an underlying expectation that others will make resources available in turn. This attitude is part of the sometimes expressed but often implicit value system of the quilting community, which values collaboration, teaching, and supportive/nurturing behaviours. Hostile interactive behaviours are not part of the quilting community; flame wars and derogatory comments are not anywhere to be seen in the blogs, message boards, newsletters, and forums reviewed in this study.

Domain Analysis

This study used three domain analysis approaches to help elicit understanding and insight into the sites studied. These three approaches were bibliometric,

epistemological, and the study of discourse. To help frame the discussion of what was found, and the later discussion of the conclusions in response to the research questions contained in chapter five, it might be helpful to first briefly summarize what was examined with each of these three approaches.

Bibliometric

The bibliometric study was essentially a study of the documents and information resources offered within the sites. These documents, resources, and texts confirmed that this is a group of hobbyists attempting to convey the techniques and history of their craft in the best possible way they can. "Portal" sites, though frequently abandoned, showed at least a great deal of time in the initial outlay of building the sites, as possible site visitor needs were considered, resources were selected, and then brought together in structures the site owner believed would aid understanding and discovery. Attempts to make the links easier to find within lists were made with alphabetizing, subheaders, and multiple pages. Books and magazines were recommended, and on some sites articles were submitted by site users. Poetry about quilting was an interesting sideline, as were sites that came up with their own legends to describe quilts. Newsletters, if published, were often to update site visitors about new information posted to the site as with the *Womenfolk* Web site; to send off-topic but "connected" information, like recipes; gave free patterns; pointed out new Web resources; etc. In every case the information was clearly intended to teach, inform, and make resources accessible that would aid people in making quilts and feeling themselves to be part of the community, as will be discussed below. In light of all this, it was regrettable to discover that so many sites did not maintain their links. As links were broken, particularly in portal sites, the value of the site to a potential visitor correspondingly diminished.

Epistemological

The epistemological analysis examined the teaching tools and techniques used by the site owners. In examining the tutorials on the sites, it was expected that Web 2.0 tools (e.g., video, audio, tagging, wikis, message boards) would be used more frequently than they were. A few Web sites had message boards or blogs attached to the site; one blog had video; but nothing more than that, which may indicate the relative inexperience this group as a whole has with Web design and Web technology. Tutorials most frequently took the form of text. This text might be illustrated with drawings, photos, diagrams; the one tutorial on making crazy quilts in the *Priscilla's Quilts and Country* Web site was pure text without any illustration, but at each stage a

related source of information on the Web was linked to the step discussed in teaching the technique. The history of quilting was a notable factor in the teaching of the craft and the bias toward the Caucasian pioneer tradition can be seen in the contrast the *Quilt Ethnic* site offers to the rest of the data set, in its distinctly separate material.

Frequently patterns and designs are made freely available to site visitors and these often contain instructions to the user. In all of the teaching, however, related sites and sources of information are almost invariably cited, linking sites into a network of information, as mentioned in the bibliometric study section. Within these networks information tends to cluster. Sub-types of quilting tend to gather together, such as crazy quilters and women making Baby Jane quilts. They link to each other and specialize in teaching certain techniques and the history of "their" type of quilting.

Study of Discourse

The study of discourse includes all of the supportive strategies discovered in the Web sites, the discussions of creativity, and the frequent allusions to family and home life. The discussions of creativity were in some instances quite exhaustive, with essays written on how site owners experience and value creativity, for example. In other instances issues around creativity were restricted to elliptical references, such as statements of colour preferences. While the materials about creativity were anticipated at the outset of the study and were easily discovered, there were elements of discourse that emerged from the data, such as the linking of family life to quilting. This linkage was found in genealogical discussion, the making of quilts for family, notations of family events, and the sharing of quilting with family members. This family focus was echoed in the focus on domesticity, such as recipes and other crafts.

Another major component of discourse was the encouragement given to new quilters and the supportive language for those who might be interested in learning more about quilting. This element crosses over into the epistemological analysis, but the concepts of community and support within the community were very much present, though they were not openly discussed as issues of creativity were.

Domain analysis used in conjunction with a grounded theory approach to the data collected meant that five major themes emerged. These themes group the findings as issues of community, gender, generativity, creative-emotional discourse, and teaching. Most of the findings cross theme boundaries, meaning that these categories conceptually bleed into each other, but the findings are divided in this way for ease of discussion.

Quilting Community Formation, Support, and Values

While "community" as a topic was not discussed in any of the sites of the dataset, issues of community and identity with community were everywhere. All of the sites within the data set contain community-building elements, from the very limited audience of the *Rick McGuire* blog to the very large audience of the *World Wide Quilting Page*, which claims to be the largest quilting site on the Web. Manifestations of community could be seen in references to guild memberships, attendance at quilt shows, and classes taken, in comments on projects undertaken within volunteer settings and in conjunction with other members of listservs and chatrooms.

"...I received a phone call from Cindy. They were staying at a bed-and-breakfast in Vermont on a skiing package, and had noticed a flier about the quilt weekend packages the Inn was offering. There were still 3 spots opened, and she wanted to know if I wanted to sign up. Sure, why not?!?!?!? This class was a blast!" (McGuire, Let's Twist)

The confidence these site owners feel about their place within the community can be seen not only in their willingness to share their creativity, but in the startlingly personal revelations made about self and family while discussing quilting. This confidence is an important factor in creating motivation to share information (Hsiu-Fen 2007). Not only in discourse but in technical structures within the sites the emphasis on community was evident.

Community Building Through Discourse

Text-based encouragements of community formation and strategies for community building are not only verbal statements of support for new quilters but explanations of how easy and enjoyable quilting can be. These could be both explicit and implicit, with what was not said often being as or more revelatory of community than what was said. There were comments and even poems about how enjoyable quilting is, how relaxing and fulfilling. All comments about quilting as a pastime (though some would call it more "addiction" than "pastime") were positive. Elliptical references were made to guild memberships, attendance at quilt shows, classes taken, and interactions at local quilting stores. Quilting was also frequently placed within contexts of family and friends who benefitted from the quilting activities of the site owner. In all of these elements, quilting as a fulfilling and pleasurable activity is framed by positive interpersonal interactions (e.g. "I hope you enjoy viewing my quilts as much as I enjoy sharing them with you" Laukkonen, Quilting Album). Alexander Ardichvili, Vaughn Page, and Tim Wentling (2003) have observed that within professional contexts

employees feel hesitations in contributing to information repositories, because of fears that what they write will not be acceptable to the community. In contrast, the confidence with which these quilters share details about their work with the community appears to be directly related to the community emphasis on acceptance, support, and positive interactions.

The emphasis on positive interpersonal interaction is especially to be seen in the message boards and discussions that take place between quilters online. Conversation is almost always positive and supportive, not only about quilting projects, but about other, personal information. It was notable in the sites that non-quilting information was often given as a kind of sub-theme of quilting. This could include work on other handcrafts, travel plans, family information, and discussion of notable life events such as wedding anniversaries. Some personal revelation is startlingly intimate in nature, such as the page on Candy's Goff site discussing her father's death (Dale's Rose); some of it is trivial, such as a message board wishing a member a happy birthday. This emphasis on emotional support and listening ears may be a component of the priority placed on traditionally "female" value systems within the gendered nature of quilting (Stalp 2006). It may, however, be part of the culture of internet discourse, as one of the startlingly personal revelations is made by a male quilter, who discusses in his blog how dealing with mental illness brought him to learn and then take up quilting as an artistic passion (Handley, Quilting/Mental Health).

Community Building Through Site Structure

The technical support of communities, or what might be termed structural techniques to build online communities, included joining or creating Web rings. Web rings are tools which group thematically similar sites together with a linking tool. Viewers interested in the subject matter that brings the group together can "page" through the Web sites by clicking on an icon. Forums and message boards are another structural tool, encouraging commentary and exchange within the group. Newsletters foster a sense of membership in a group, particularly if the newsletter encourages contributions from its subscribers. In a similar way galleries develop community when they ask for site visitors to contribute images of quilts they have made for other site visitors to view.

Guestbooks, when maintained, offer a sense of community and belonging to the site owner, who is able to receive feedback and commentary (usually positive) on the site and the resources created therein. This then gives the site owners a feeling that

their work is valued by the community of users. The literature states that they should then be more likely to continue to contribute to their sites (Baker and Ward 2002; Teo et al. 2003). However, the reality is that most of the sites containing guestbooks are abandoned and the guestbooks have been taken over by spammers with advertisements, such as the one for *Shirley's Quilts*. One entry in her guestbook from "Garry" is a list of links to sites offering foam toppers for mattresses for sale (Guestbook).

Side panel blogrolls (a term describing the list of recommended blogs listed beside postings on a blog; see Figure 5) of recommended sources and favorite blogs on related topics create community as well, in that these blogrolls often mark out a sub-community within an interest area.



Figure 5. An example of a blogroll.

Blogs offer a feature known as 'blogrolls': running down beside the blog entry text, links to other recommended blogs are provided by the site owner. Home page for *Quilting Gallery*, <http://quiltinggallery.com/> (accessed Feb 5, 2008). Permission to use these images has been granted by Michele Foster from Ottawa Ontario. Quilt images from other sites have been blocked out at the request of Michele Foster.

The blogroll can identify quilters who communicate with each other regularly (as witnessed by the comments on postings), exchange ideas, and engage in group activities to foster friendships despite geographic dispersion. Such activities include solicitation of input into current projects, which might involve, for example, an award like a gift of fabric for the winner of a competition to name a new design. Blog awards such as the "You Made My Day" award simply recognizes blog posts that have uplifting, notable content, but then require the recipient of the award to then give "the

award" to other postings on other sites. Blog owners also invite commentary on postings, "tag" other posts (a request for specific personal information, usually in the form of several questions), and initiate group projects such as block swaps (creating x number of quilt blocks and working within a group to exchange them). In these ways these bloggers find a way to create common understanding, overcoming the communication barriers of geographic dispersion and technology (Malhotra, Gosian, and Hars 1997).

Community Building Through Smaller Group Projects

Quilting Web sites may sponsor group activities such as block swaps (i.e., when a group of individuals each agree to create x number of identical quilt blocks and exchange them with each other so that each receives an unique block from every member of the group), such as the "pretty kitty" cat-themed block swap organized through *Block Central* (Pretty Kitty). Some communities around specific Web sites are so well integrated that the membership will spontaneously develop group projects. Some sites are created specifically for the purpose of developing and supporting a community and fostering growth. The *HeartStrings* project is just such a site (see Figure 6). It evolved out of a Yahoo!groups community, as quilters within the community decided that they wanted to work on quilts for charitable purposes. The Web site was developed by a group member for the purposes of tracking group activities and soliciting additional membership, and continues a long tradition of quilting as charitable work in geographic communities (King 2001).

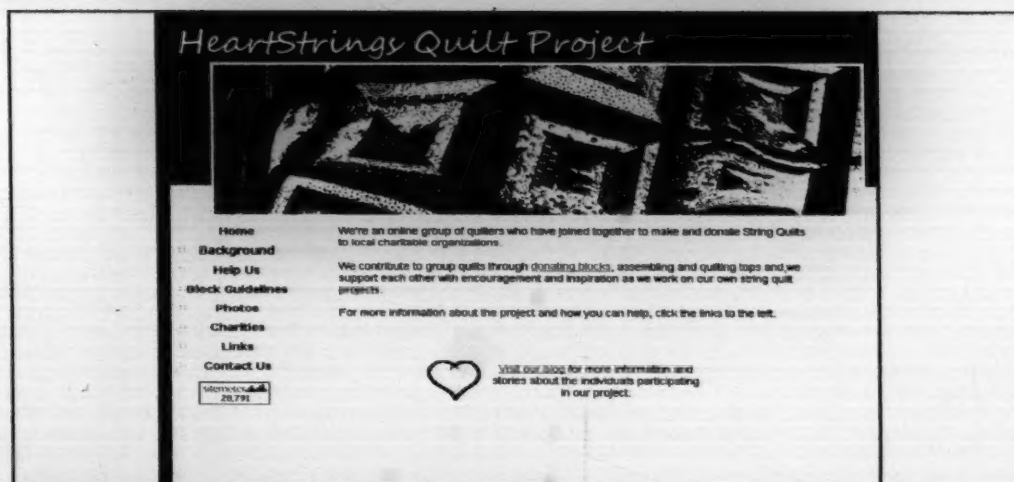


Figure 6. A charitable sub-community of interest.

The HeartStrings Quilt Project is an example of a group forming online to continue a long tradition of quilting in support of community charities. Home page from *HeartStrings Quilt Project*, <http://heartstringsquiltproject.com/index.html> (accessed Jan 23, 2008). Permission to use this image has been granted by the HeartStrings Quilt Project.

Sub-groups of interest, as seen in the *HeartStrings* example, can be smaller communities of interest within the larger quilting community, in a splintering of interest as described by Paul Baker and Andrew Ward (2002). These smaller groups of interest tend to cluster together, citing some of the same books and Web sites as recommended resources, as seen with Baby Jane quilts. One quilt historian started teaching classes about a quilt made by a woman named Jane Stickle, and how she was making her own quilt based on the patterns contained within Jane Stickle's quilt. Now other women are creating their own "Baby Janes" and chronicling their progress online (Papadakis). One woman within this group voluntarily developed a piece of software that could function as a virtual "quilt wall" and thus allow other Baby Janes in progress to be viewed online as blocks are added (Mastbrook). Links to the quilt historian's site, use of the free 'quilt wall' software, and links from one Baby Jane quilter to other Baby Janes in process on other sites come together to create a virtual community of interest which is then amplified by message boards, virtual chat, and discovering other "Baby Jane" quilters through the Web. In those sites with membership in these virtual sub-communities quilter site owners may not only recommend resources but also provide information on how to join these groups.

Community Findings Within The Context of The Literature

The information behaviours demonstrated within the quilting community verify the findings and discussion of Huotari and Chatman's article on small world theory (2001). Clearly there are cultural expectations that are affecting the transfer of information, relating to the information strategies of small-world interactions. The difference between this research with quilters, and that discussed in Huotari and Chatman's article, is that information is shared by this group with outsiders—freely and without any expectation of reciprocity from users (2001, 362). Small world theory holds that the difference between group insider and outsider means different information for one over the other, and this certainly may be true within the professional context their article addresses. However, this does not hold true within this hobbyist group. These sites are freely sharing information in directing the user to other sites and referencing groups and communities who welcome membership. These quilter site owners seem to expect (and their experiences would bear them out) that the larger community's value is about freely giving information as it has been freely received.

The information behaviours of the community are influenced by the community values of support, positive communication, teaching, and sharing. The information itself is also impacted by these values. The information is socialized—what might be called contaminated—in that quilting information is often placed within a context, or given sub-themes of other interests, family, and personal life experiences. Such a socialized context, again, speaks to ELIS theory and to the concept of way of life. Way of life is informed by such elements as values, cultural capital, and the current situation of the user (Savolainen 2005). Here the provider of information understands that within the quilting small world information about quilting is expected by the community to contain other cultural elements as dictated by community values, and that to comment on one's own situation is to make an important move in fostering feelings and behaviours of community membership which will lead to information exchange.

Hobbyists do not always require community in order to practice their craft. They do, however, need community to teach it to the new hobbyist and often to inspire existing hobbyists. The social imperative of traditional quilting, with its feminized expectation of social, sometimes nurturing interactions (King 2001, 26) has been carried over into the virtual world of quilting. As seen in these sites, participation in the discourse of the community and self-identification within a group and a tradition are integral to quilting.

Male Quilters in a Feminized Quilting Culture

As already discussed, quilting has traditionally been a feminine domain, and what might be termed "feminine" values of community and cooperation are still hallmarks of it (Stalp 2006). Feminized images and patterns, such as flowers and "bridal quilts" have often been keynotes of the quilts themselves (Kiracofe, 1993). Both the male quilters included in this study had quilting styles and attitudes to the quilting world that were illuminating when compared to that of traditional quilting, as are their discussions of how they were introduced to quilting as a hobby.

The quilt styles of the two male quilters were very much distinct from that of many female quilters. Rick McGuire uses geometric shapes, jewel tones with black backgrounds, and embraced the use of orange when told that it was normally avoided by quilters as being too strong (Rick McGuire, *Tiger Tiger*). Michael Handley uses geometric shapes and straight seams as part of his "quilting dogme" guidelines that frame his artistic values, and disdains "grandmother" style quilts (*What I Didn't Like*). For an illustration of the contrast in the styles, please see Michael Handley's "Labyrinth" quilt (Figure 7) and the example of the modern album quilt (Figure 8).

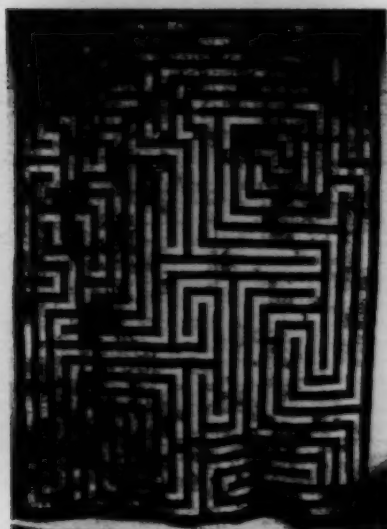


Figure 7. An example of a finished quilt from a male quilter.
This quilt made by Michael Handley reflects the preference of the male quilters in the data sample for straight seams, geometric shapes, and non-traditional forms. "Labyrinth." 2003 – 2008. Permission to use this image granted by Michael Handley.

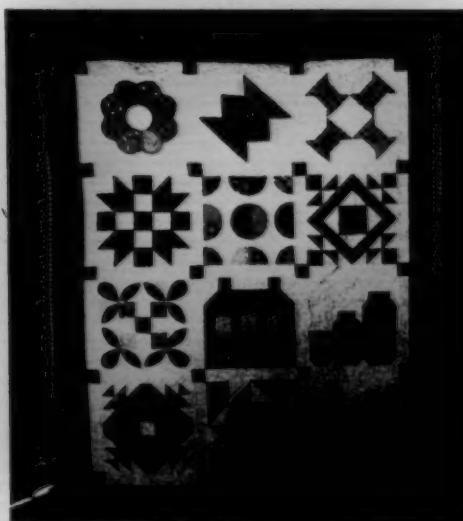


Figure 8. An example of a finished quilt from a female quilter.
An image of a modern "album" style quilt. Kuck, Rebecca. "There's No Place Like Home Archives." The Golden Thimble, <http://thegoldenthimble.com/archived2006.html> (accessed Mar 31, 2008). Image used with the permission of Rebecca Kuck of the Golden Thimble.

Both men were introduced to quilting by women in their lives to whom they are emotionally close. While one man in his (now abandoned) blog entries refers to all his female quilter friends and one male quilter friend without discussing his minority status (Rick McGuire), the other frequently refers to that fact that he is "off demographic" and that he "has something to prove" to his guild members (Handley, Completed Projects). Both of these men unapologetically discuss costly events such as travel to quilt shows and purchases for their hobbies that must cost a considerable amount; one posts images of his quilting studio. Both blogs are notable in this regard because they matter-of-factly acknowledge the time and money spent on their interest and do not excuse it away, providing a stark contrast to the kind of compromises and excuses female quilters frequently make in relation to their hobby quilting (Stalp 2006). The perfect illustration of how different their attitude is to that more commonly expressed by female quilters would be the contrast between the men and the women quilters and their fabric stashes. Fabric stashes are stockpiles of fabric that are intended to be one day used in projects. They can be leftovers from previous projects or purchases made for future use. The women make jokes and excuses about their "fabric stashes", and semi-

jokingly talk about how they will hide the size of their fabric stashes from their husbands with statements like "my husband lets me buy all the fabric I can hide" (Kuck, Quilt Sayings). In contrast, the two men in this dataset do not excuse the possession of fabric stashes but make comments like these:

There's a nervous undercurrent to all of this joking [about fabric stashes]. Talk about the stash comes with a little edge of... *something*. Guilt, I think. Fabric costs money, after all, and there seems to be a sense among the (mostly) women who quilt that it's a *questionable* use of money. A sociologist would probably say that women have been conditioned to feel ashamed of spending money on their own activities, rather than on their husbands and children. And she might be right.

I can't relate. I love my stash. My feeling about having a large fabric collection (which I was inflicting on Rebel just this morning) is that there's nothing wrong, if you've got the dosh and the space, with keeping supplies and materials on hand to fuel and support your creative endeavors. "As an active and proficient craftsperson," I sloganized, "you should be proud of having the essentials of your craft on hand!" That's my view, and I'm stickin' to it. (Handley, Dude! Check Out My Stash!)

The male and female quilters, however, are alike in that they turn to quilting as something that provides relaxation, a creative outlet, and a way to express nurturing for loved ones (King 2001, Stalp 2006). Both genders accept social activity as an inherent part of quilting, with one male quilter the lone male in a guild, and the other attending quilting classes taught by female instructors, in company with his female friends and occasionally his sole male quilter friend. Both male quilters, again echoing the stories told by female quilters, were introduced to quilting within nurturing, generative settings: one male quilter was taught quilting by his mother (Handley, Quilting/Mental Health); the other was taught by a close female friend in order to produce a quilt as a gift for a new goddaughter (McGuire, Little Girls).

While gender, based on the two cases given here, does not seem to affect information behaviours in any notable way within quilting, it does seem to affect how the quilter approaches the hobby. Attitudes toward not only quilt aesthetics but expenses of money and time involved in pursuit of the hobby, as shown by their indifference to the accumulation and storage of "fabric stashes", were markedly different for male quilters. It would be worthwhile within the serious leisure field to further investigate the differences of gender in practice of other hobbies that are traditionally 'male' or 'female'.

Generative Behaviours Linking Family to Quilts

Generativity, as described by Piercy and Cheek (2004), encompasses the concern and commitment expressed by quilters for loved ones across generations through creating and giving quilts. Because some of the aspects of generativity are covered in the sections on community and teaching, in this section generativity will be discussed solely in relation to family and cross-generational activity.

Seven sites within the dataset contain discussion around issues of generativity across generations of family. Thirteen of the data set's twenty-five sites contain images of quilts made for family members and references to gifts made. The discussions of generativity in those seven sites, however, speak directly to how the site owner was prompted to create, learn, or teach as a result of family-quilt interaction. The forms that this generative discussion took varied widely. One grandmother discusses teaching her ten year old grandson to quilt:

I have three quilts that I have entered into the show. My Grandson, Ryan, has his quilt, that he named "Wild Things" entered also.

Ryan is my son's ten year old little boy. When visiting me one afternoon he wanted to make a quilt, and when questioned he had a very definite idea of what he wanted. He wanted it to be flannel and some outdoor things on it.

We went to my fabric stash, and he had a great time picking out the fabrics for his quilt.

I cut the squares and he sat at my dining room table, with my Singer Featherweight sewing machine and pieced the top together. He match[ed] every seam exactly and used a 1/4" seam.

I kept wanting to move the squares around to make it look better to me...then I realized, Ryan had his own idea about how he wanted it to be...and it was HIS quilt. That is what is so great about quilting...you get to do what YOU want. I finally went into the kitchen and made him cookies...and let him arrange the squares the way he wanted to.

He thought this was great fun, and the sewing machine just was his size. (*Joy of Quilting*, Fall and the quilt show)

On the home page of her site, *Joy of Quilting*, this quilter further expresses her association between quilting and family by stating "I only have two regrets. My grandmother did not live to see my quilts, and I did not start quilting earlier" (Home). One of the male quilters was prompted by the birth of a godchild and the help of a close female friend to learn quilting, and was prompted to continue with quilting by the birth of a second godchild and the subsequent involvement of the two godchildren and both their mother and father in quilting as well (*Rick McGuire*). The *Nana Lord Quilt*

Project was prompted not only by a desire to find out more about a loved grandmother, Nana Lord, but to preserve a family heirloom for the owner's children (see Figure 9).

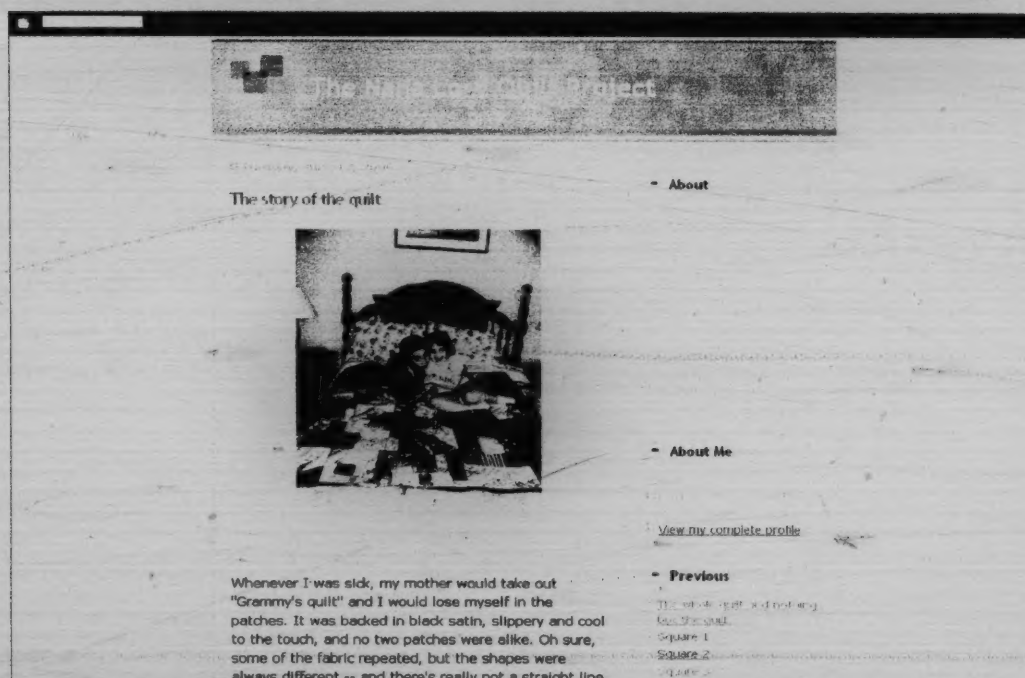


Figure 9. An example of generativity.

While this site does not express the creativity of the site owner, it does exemplify the generativity of quilting, as seen in this photo, in which children are being introduced to a quilt made by their great-grandmother. June 13, 2006 The Story of the Quilt, *The Nana Lord Quilt Project*, <http://nanalordquilt.blogspot.com> (accessed Feb 29, 2008). Permission to use this image granted by Jennifer Lord Paluzzi, Massachusetts USA.

Issues of generativity are not always restricted to one family. Generativity in one instance was provided by a quilter for a neighbor. In an article posted to the *World Wide Quilting Page*, a woman named Sherri received a gift of unusable clothing from a recently widowed neighbor, trying to clear out closets after the death of his wife of sixty years. The neighbor took the cotton fabrics, cut them and made them into a patchwork lap quilt which she tied in the interests of speed so that she could quickly give this to her neighbor and try to alleviate some of his grief:

I brought it over to him , not wrapped, and placed it in his lap and he looked at me and said "What's this?" and I replied " A memory quilt.." and then I pointed to different squares and told him what they had been, a small boys shirt, his wife's dress, a girls jumpsuit, etc. and suddenly his face lit up and he started pointing out pieces to me and telling me what he remembered— I'll tell you, both of us were in tears but his were shining with wonderful memories instead of grief. I never felt so blessed as I did at

that moment. A short time later, he took a turn for the worse and had to move to a nursing facility but he took the quilt with him. The family said it was on his bed and only let him to be washed by family and only overnight, so he would not be without it for long. When he died, his wish was that he be buried with the quilt over his suit—so it was buried with him. (Remembrance Quilts)

One quilter said on her site "quilts were not a part of my childhood". And yet when she did take up quilting, she celebrated her tenth wedding anniversary by making an heirloom quilt in the style of a bygone generation, with a modified "Whigs Defeat" block. This quilt took 3,120 pieces, entirely hand pieced, and was then handquilted in a traditional feather pattern (Goff, Whigs). Here generativity took the form of a conscious choice to place her work within a historic context with a highly traditional form, giving the quilter a connection to the quilting traditions of earlier generations.

Generativity was more frequently implied than discussed. If discussions of personally created quilts occurred, they almost always revolved around how the quilt was made, its inspiration (a picture in a magazine, a quilt seen at a show), and a mention of for whom the quilt was made—a father, niece, etc. For example:

My husband had always been telling me that he wanted a lap quilt that was just his own. He loves M&M's so I decided to go in search of some M&M novelty fabric... which isn't so easy to find any more. I went on eBay and was able to get a few different ones. If you're looking for fun novelty fabric I sure recommend shopping_for_chase on eBay. She is a wonderful woman and her stuff is good quality, carefully shipped and arrives quickly. The link I posted to her name will take you to her eBay store.

I wasn't quite sure how to put it together but I found a free pattern on the Connecting Threads site called a Postage Stamp Quilt so decided to use that pattern and make it one row wider and one row longer. I also made circles of fabric and appliquéd an M on them so it looks like there are M&M's floating down across the quilt. I decided to have this one quilted for me by a girl I know who does long arm quilting. It turned out awesome and he really likes it (*Shirley's Quilts*, Christmas 2004)

In contrast, the *Laurence Martin* site is a direct contravention of the rest of these sites, showing that not everyone considers quilting in a family-context, unifying-community way. This owner seems to view her quilting and general artistic creativity as a form of rebellion against her upbringing, saying "As a child growing up in a very traditional French family focused only on intellectual and academic learning, I was not allowed to enjoy any form of self-expression" (*Accueil*). The result is that this exception throws into high relief the 'norm' of positive discourse around family and inter-

generational activity. Furthermore, this entry shows the frequently emotionally-charged nature of quilting.

Generative issues in relation to ELIS can be addressed in the same way that issues of community are: they are a component of small world theory (Huotari and Chatman 2001), and part of the values and cultural capital that underlie information behaviours in everyday settings (Savolainen 1995). However, generative issues in relation to quilting indicate that the social practices side to ELIS is an area that presents varying information behaviours, according to the activity pursued (McKenzie 2003). In a serious leisure framework they provide another comment on how charged quilting is as a hobby with sub-context. It is this sub-context that is of particular interest in relation to Lave and Wenger's theory of situated learning. Clearly, the quilting community by and large believes that quilting is tied to family history (which will be discussed more in the teaching section) and intergenerational activity. It is framed in positive family interactions and relationships, as in the example of teaching a loved grandson to quilt and then arranging for his quilt to be shown at a quilt show where friends and family could come see what he had made (*Joy of Quilting*, Fall and the quilt show). Quilts when made are frequently a token of love, nurturing, and caring that can be extended beyond immediate family to friends and future descendants. The positive attitudes and emotions around gifts of quilts are indicated in this quote from the *Quilting 101* site: "Quilt making...is an act of creation of true beauty and an expression of emotion" (How to make a quilt). To quilt is to take on in some measure part of that value system.

The Creative and Emotional Aspects of Quilting

It might seem that creative and emotional aspects of quilting could be separated into two sections, but the two are intertwined in the comments quilters make about their creative processes and their quilting. To discuss the creativity of these quilters is to discuss their emotions, and vice versa. One of the research questions asked by the study was, "How are aspects of personal creativity represented on the Web sites?" It was anticipated that this representation would be reflected in photographs of completed quilts and discussions of creativity and the creative process of making quilts, and that there might be other ways in which creativity would be represented. Personal creativity was represented in these ways, but it emerged that creativity could be discussed and referenced in many more ways than were envisioned at the start of the study.

Only four of the twenty-five sites in the dataset have neither evidence of nor discussion regarding the site owner's personal creativity. Two of these sites were purely portals, sites with lists of links with which site users can locate information on the Web: *QuiltNet* and *Quilt The Atlantic*. Another was the *Quilt Ethnic* site, which uses essays to teach site visitors about forms of quilting other than those of the North American Caucasian pioneer traditions. That site was strictly an intellectual exercise (as shown by the sparse illustration and comments about buying), rather than about making quilts. The other site that did not address personal creativity was a chronicle of a grandmother's creativity and research into the history of family quilts (*Nana Lord*).

The rest of the sites all had some evidence or discussion of the site owner's personal creativity and creative endeavors. It might be minimal, such as the *World Wide Quilting Page*'s owner posting one image of an afghan she had made and no pictures of her quilts (Traudt, Circles), but in many of them there was extensive discussion around and many examples of creativity. The most frequently displayed evidence of creativity was the images of quilts made by site owners, used either to decorate the site, illustrate an example in a tutorial, or to share with visitors as part of a gallery. In the instances where galleries were created, these quilt images were frequently tagged with information regarding when they were made, for whom, and what techniques were used. Some site owners discussed quilting in terms of "fun" and made jokes about quilting, like a site owner named Caroline Ingalls (who shares a name with the famous mother of Laura Ingalls Wilder, the author who chronicled her life as an American pioneer in the late 1800s) who claimed that her name mandates leisure activities like quilting and baking bread. Despite the use of the term "fun", which Stebbins (2004) has identified as a term that can point to casual leisure activities, the discourse around creativity and emotion clearly indicates that these quilters identify quilting as fulfillment rather than mere fun.

Serious discussion about what creativity is and how site owners cultivate it was available in several forms. Some site owners wrote essays on creativity, while others simply talked about how quilting made them feel. Some quilters discussed their creativity in terms of sources of inspiration and contributory factors to the final product. Altogether there were five ways in which quilters discussed their quilting creativity:

Quilting As A Creative Act

In these discussions of creativity there were two women who exhaustively described creativity as a force to be cultivated and pursued. Within the *Womenfolk* site,

a linked sub-site about creativity is available, including instruction on how to develop one's own creativity. The purpose and value of being creative is described on that site as "a process of joy and discovery...creativity will reach into your deepest self; it will continually press and challenge you" (Breneman, *Exploring the Creative*). On the *Laurence Martin* site, Laurence Martin describes creativity as spiritual, because it is an expression of one's feelings, a connection to Life, and a way to discover self (Acceuil). In both these instances creativity is framed as having a strong emotional component. This tie between expressing creativity and experiencing deep happiness is one recognized within the field of psychology by such academics as Mihaly Csikszentmihalyi (1997).

Quilting As Emotional Succor

Other sites contained discussion of creativity as a force in quilter's lives, claiming that quilting can produce certain emotional states. Statements such as "quilting brings feelings of joy, peace of mind, creativity, a sense of accomplishment" (Massard, *Quilt Top*) explain not only why the site owner quilts, but contain an implicit promise that quilting could provide such an emotional balm for others interested in taking up the craft. Some quilters use quilting as a healing process. One quilter made a "misery quilt" that helped her to heal from her father's death (Goff, *Misery Quilt*); another quilter talks about how quilting helped him overcome mental illness and regain health and strength (Handley). The tie between emotional state and cognition is recognized by information science (Nahl 2007): according to these quilters, to be able to quilt gives quilters a way to reflect and process life's challenges.

Quilting As Passion

Quilters also talk about quilting being a passion, an addiction, and a lifelong interest. These kinds of comments on the sites made it clear that quilting for many is more avocation than pastime. One quilter talks about the hundreds of ideas she has for quilts perpetually floating in her head, waiting to be made (Through the Years, *Joy of Quilting*). One quilter wrote that she comes up with quilt patterns by dreaming about quilts (Goff, *Misery Quilt*), while another quilter solved a quilting problem during an attack of insomnia (Smith, *Crazy Quilt Christmas*). Again, this chimes with Stebbins' (2004) definition of the serious leisure enthusiast finding gratification and fulfillment, rather than mere fun, in their chosen activity.

Quilting As Object

These discussions of quilting were framed and influenced by constraints. The *State of Craft* blog has an entry titled "Quilting Dogme" that lists, point by point, the artistic constraints under which the quilter chooses to make quilts (Handley, What I Didn't Like). The site owner of *Shirley's Quilts* talks about how she wanted to make a quilt for a seriously ill brother in law. She describes the process of making the quilt in terms of the quilt requirements: she wanted it to feel comforting like a hug, so she chose to make a rag quilt; her brother in law is colour blind, so she used a lot of red; her own favorite fabric pattern is plaid, so she used plaid materials (Ellen, Raggedy). The site *One Quilter's Opinions* describes quilts as objects that inherently are "an expression of love, a sense of history, heck, a method of sharing the talent and creativity of the creator" (Parker, Educational). The relationship between leisure, creativity, inspiration, outside restrictions, and the tools at hand, in order to deliver an object to recipients, is similar to that described by Hartel (2006) as the gourmet cooking process for food enthusiasts.

Other Examples Of Creativity

Other than quilting and completed quilts, examples of site owner creativity featured in the sites are other needlecrafts, like embroidery or knitting discussed as secondary to the quilting; fabric dyeing; fabric paintings; cooking and recipes; planning family activities; designing quilt and block patterns; and wall hangings and clothing that use quilting techniques. One site owner posts on her site images of her student's quilts to show what she has taught them and how she has impacted their creativity (Massard, Sew A Quilt site). Some sites feature poetry written by site owners. The expectation that information about quilting will include items about domesticity and other areas of creative endeavor appear to be a part of the cultural context of quilting communities affecting information behaviour (Kim 2000).

Issues of Creativity and Emotion in Serious Leisure and ELIS

In any model of information behaviours in relation to hobbies, it seems that it needs to accommodate the degree of passion with which one pursues one's interest. From creating mental models as to how the object will be created, to perceiving the hobby to be relief from emotional turmoil, quilting is more than a way to pass the time or make an object. The process of making quilts, and the quilts themselves, are being invested with value and emotion.

Quilting as a coping mechanism speaks to way of life and mastery of life both, unifying the two major components of Savolainen's model (2005). If a hobby impacts how people perceive themselves and affects their ability to maneuver through life's problems, then hobby activity cannot be only dictated to by way of life and mastery of life; there is a reverse process taking place, and we understand that for some, the expression of creativity can flow back into and affect one's control and management of daily tasks and life events.

Such considerations should be included in the study of hobbies. The outward process, socialization, and end object are all worthy of study, however the internal processes and personal approaches which are influenced by emotional and aesthetic considerations, among others, are significant, as can be seen in the experiences described by these quilters.

Efforts to Teach Quilting to the Public

At the beginning of the research, elements of teaching for sampling purposes were identified as tutorials, free patterns, recommending resources, information about quilting history, and general "supportive language", which would include such things as a site owner's email with an invitation to contact her if the user of her patterns ran into difficulties, or words of encouragement to try a new technique. All of these elements contribute to the development and fostering of the craft, and the recruitment of new quilters. These elements can and do blur into each other, but there is enough distinction between them that each should be separately addressed. It became apparent as the data were collected, however, that the range of elements that could fit under this category was far broader than had been anticipated.

While there were some sites which did not contain any teaching elements under the initial definition, those sites still contained elements of community and community building. As discussed in the literature review, learning is frequently about identity within a community (Lave and Wenger 1991), and quilters have long embraced community-building values of teaching, fellowshiping, and generally informing others about quilting and quilts (Stalp 2006). This aspect of teaching is more fully discussed in the community section. The *Quilt The Atlantic* site, for example, does not contain any of the sampling elements such as a tutorial on quilting techniques. However, its function is to support the development of the quilting community within Atlantic Canada by notifying its visitors of events and news, informing them how to contact local guilds, find teachers, etc. The apparent connection between quilting and sharing information

about the craft, as if to quilt brings an obligation to share information, reflects the finding of Elena Prigoda and Pamela McKenzie (2007). The knitters of their study claimed that the teaching of their craft was part of knitting itself.

Patterns and Tutorials

Free patterns are frequently offered by quilting sites. Nine of the sites included free patterns that site visitors were free to download and use in their own quilting. Some of these were basic .pdf documents while others were created with Electric Quilt (EQ) software and could only be opened by EQ. Frequently these patterns contained diagrams and might contain other information, such as advice on fabric choice for the pattern. One site has a feature where visitors to the site can request that the site owner create a block based on one of her patterns. The owner will create a block and then post it to a page on her Web site so that the site user interested in a specific block pattern can see what the finished block could look like (see Figure 10).

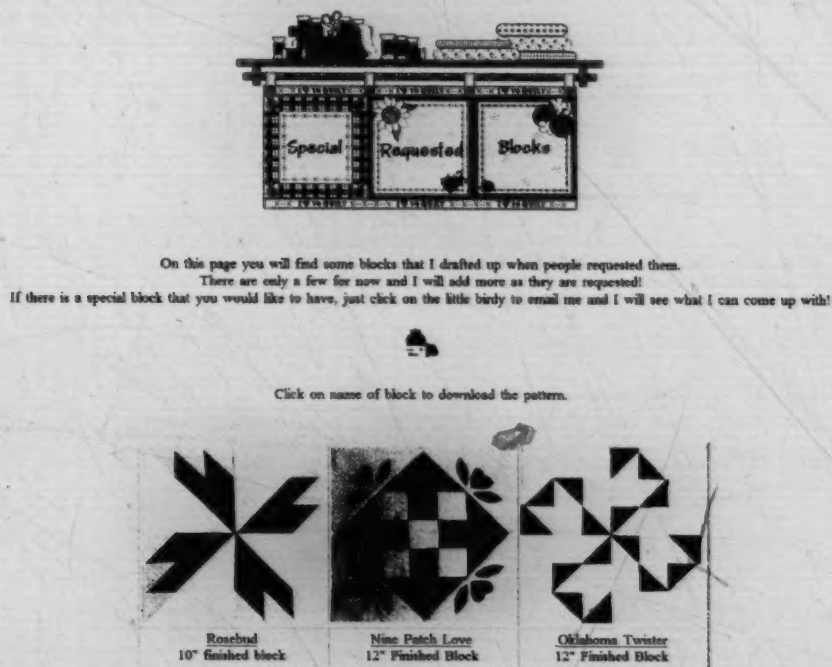


Figure 10. One example of the helpfulness site owners display in teaching the public. Special Requested Quilt Blocks, *The Golden Thimble*, <http://thegoldenthimble.com/specialrequests.html> (accessed Feb 29, 2008). Permission to use these images has been granted by Rebecca Kuck of The Golden Thimble.

Tutorials on technique were often combined with instructions on pattern usage and were almost entirely made up of text and image, with the exception of video used in the *Quilting Gallery* site. Web 2.0 tools were not used for teaching, with the exception of this one instance of video use and some blog entries. An example of a standard tutorial and its reliance on static images and text can be seen in Figure 11.

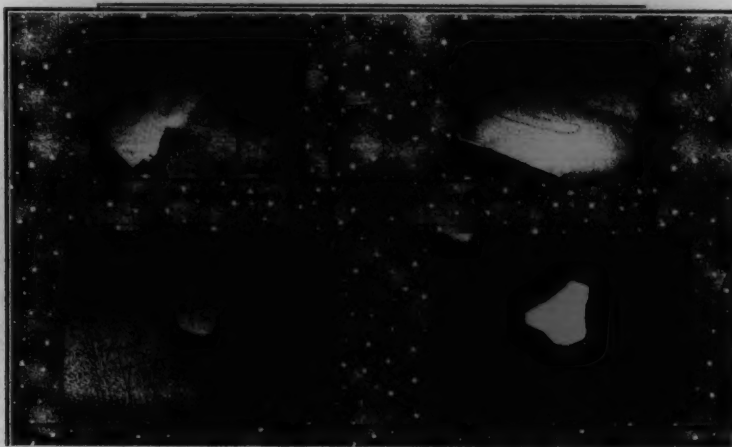


Figure 11. A sample of an online tutorial on quilting technique.

Tutorial for Freezer Paper Metho (sic), *The Golden Thimble*,

<http://thegoldenthimble.com/freezerpaperappliquemethod.html> (accessed Feb 29, 2008).

Permission to use these images has been granted by Rebecca Kuck of The Golden Thimble.

Tutorials are not always about technique or pattern, however. Within the dataset there were six sites with informative essays on the historic aspects of quilting, and there were many other tutorials on such topics as how to identify quality material, what tools are best, and how to combine colours, as shown in Figure 12.

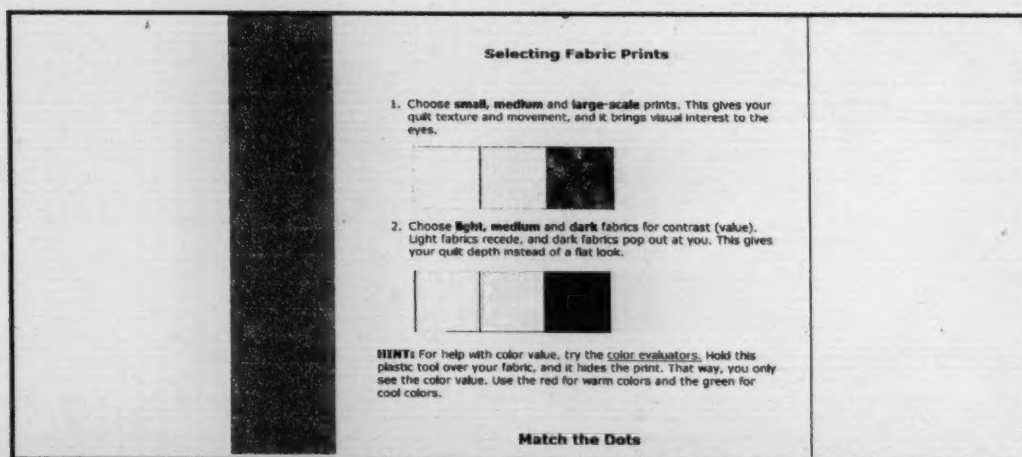


Figure 12. An online quilting tutorial about colour and fabric choice. Choosing Fabric Colors and Prints, *Sew A Quilt*, <http://www.sewaquilt.com/fabric-colors.html> (accessed Dec 12, 2008). Permission to use this image given by Gloria Massard of Sew A Quilt.

From time to time as the dataset was collected, odd teaching tools would turn up, like those on the *Block Central* site. This site offers printable "colouring pages" to help quilters plan colour combinations for quilts—an interesting alternative for those who do not wish to buy quilting software. The site also offers online calculators to help quilters calculate fabric needs (see Figures 13 and 14).

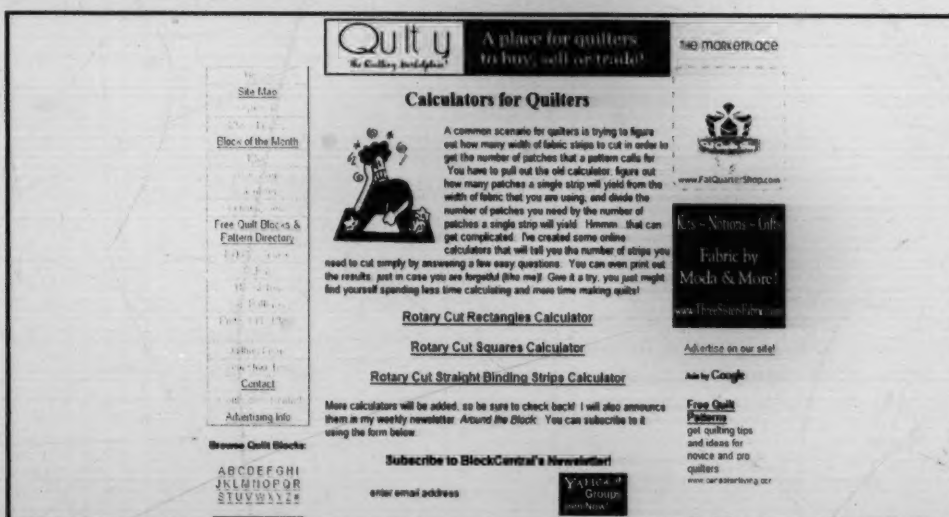


Figure 13. Tools to help quilters created by one site owner and available free of charge to the public. Calculators for Quilters, *BlockCentral*, <http://blockcentral.com/calculators.shtml> (accessed Feb 27, 2008). Permission to use this image has been provided by Kim Noblin of Block Central.

ROTARY CUT RECTANGLES CALCULATOR

Answer the questions below to calculate the number of fabric strips to cut for any size rectangle.
Just remember to use numbers and be sure to write fractions in decimal form. All measurements are in inches.

Common fractions in decimal form are:

$1/8 = .125$ $1/4 = .25$ $3/8 = .375$ $1/2 = .5$ $5/8 = .625$ $3/4 = .75$ $7/8 = .875$

QUESTIONS:

1. What is the height of your rectangle including seam allowances?
2. What is the width of your rectangle including seam allowances?
3. What is the width of your fabric?
4. How many rectangles do you need?

ANSWERS:

Strip size to cut:

Number of rectangles a single width of fabric strip will yield: Right Left

Number of width of fabric strips to cut: Right Left

Update | Reset | Print |

[Back to Calculators for Quilters](#)

Figure 14. One of the fabric measurement calculator tools provided by the BlockCentral site.

Rotary Cut Rectangles Calculator, *BlockCentral*, <http://www.blockcentral.com/calc-rectangles.shtml> (accessed Feb 27, 2008). Permission to use this image has been provided by Kim Noblin of Block Central.

Recommended Resources

Most sites contain recommendations of other resources the site owner considers to be sources of quality information that will be useful to the site visitor. This can be a list of links ranging from only a few favored blogs to extensive lists of more than 1,000 links. Such extensive lists of links are part of the sites whose primary function is identified as "assembly of resources". The fact that so many sites present recommended sources of information in various ways, however, and the comments around them such as "this site will teach you about..." means that recommended resources are considered within this context as teaching tools. These links can cover quilting topics such as online shopping, other hobby sites, magazines, pattern sources, history, tutorials in other locations on the Web, and organizations open to new membership. Other recommended resources are often quilting books. Sometimes these resources are merely referred to in passing while describing a current project as something the site owner found useful (e.g., "I got the pattern from x book in my quilting library").

Support and Encouragement

Supportive language and encouragement is an essential part of teaching beginners in any field. References have been made in other findings sections already, describing the positive language and encouragement of the site owners and users,

which appears in all facets of the sites. It needs to be noted, however, that tutorials and teaching elements in general still continue this theme of support and encouragement. On the *Sew A Quilt* home page, the reassurance starts immediately: "Let me walk you through each lesson, step by step. No guesswork here. Remember, even the professionals had to start at the beginning. So, relax. **You can do this**" (bold text as in original). Such encouragement is rhetorical in fact, but it opens a kind of pseudo-conversation that leads back into concepts of community and learning. The site owners who are engaging in this kind of support, placing it within a community framework, seem to instinctively understand that relationship between increased learning and increased community participation and interaction (Bieber et al. 2002).

The Role of Teaching in the ELIS Model

The information experience of site owners in this instance is the provision of an information resource to a community for the purpose of teaching. The teaching aspect of ELIS is one that has been discussed in recent studies by scholars such as Prigoda and McKenzie (2007), but it is not addressed by the traditional ELIS model. Savolainen's ELIS model states that there are four different attitudes toward mastery of life, and that the "optimistic-cognitive" (1995, 265) are those who take positive action in seeking out information for problem solving. It could be proposed in light of the content discussed in the teaching section that the site owners are "optimistic-cognitive". The owners of these sites present information in positive and 'managed' ways. When they talk of personal or family problems it is frequently within a context of positive management and emotional strength. It could be hypothesized that there is a link between those who are "optimistic-cognitive" and those who place themselves as teachers and sharers of information. Whether they become teachers because they are optimistic-cognitive, or become optimistic-cognitive in their mastery of life due to their intellectual capital within their way of life would be an interesting subject for study.

Motivation of the Site Owners to Create Information Repositories

The reasons site owners gave for the creation of their sites and why they are prompted to create these information repositories was of interest to this study. Thirteen of the twenty-five sites in the dataset explain the motivation of the site owner in creating the Web site or blog. The most popular reason given (nine of twelve sites) for creating sites was to help others learn to quilt. This was frequently couched in highly positive terms, using terms like "joy" (*Joy of Quilting*), and references to the giving and

helpful nature of quilters in general (Noblin, *Block Central*). Summing up the core motivations and values that most owners seemed to express, one site owner said this:

I decided I wanted a web site that would help others find what they needed, to help them in the quest to learn to quilt. This is why I have my favorite links on a web page for all to view! So a new, or even experienced quilter can find some of the things it has taken me all these years to find myself. So feel free to browse my lists and help yourself to any information you find!! I hope that your stay will be enjoyable and that you will visit the Clubhouse and help yourself to a free pattern, and all the really great quilting information that is there for the taking!

I only hope that you can take something away with you from this site, something that helps you, or makes your quilting experience more fun and a little easier! :)

If I help even one person....this site is worth all the work!

Thanks and please enjoy! (Kuck, *The Golden Thimble*)

Other reasons for creating sites and information resources still fall within the value system of quilting. The *Piecepatcher* and *Shirley's Quilts* sites were created to share a love of quilting with others. An interest in family history triggered the creation of *The Nana Lord Quilt Project*, a blog that chronicles a woman's efforts to trace quilts her grandmother made, and to investigate ways of preserving her own family heirloom quilt for her children (see Figure 9). Organizing charitable work for communities motivated *The Heart Strings Project*. It grew out of a Yahoo! Group (an online chat group) that organized itself to create string quilts (quilts made from narrow strips of fabric that create patterns) for community-level charities, such as local shelters. The site is intended to recruit non-members by inviting them to join and explaining how even non-members of their group can contribute or form their own quilting groups to contribute quilts to local charities (see Figure 6). *The Quilt Ethnic* site was created in response to frustration that the site owner, Gwen Magee, felt when she could not find information about African American quilters:

This Web site has been created in response to frustration I experienced personally in trying to find information online about historical as well as contemporary African-American quilters. Through my networking with African-American and other quilters, I discovered that I was not alone in my desire to have access to this type of information. Additionally, it became evident that in general, the work of African-American quilters is far too often either pigeon-holed, unknown or ignored.

As I began ferreting out African-American quilt-related Web sites and resource information consistently, I also began to accumulate an amazing amount of information about the quilting and textile traditions of other ethnic groups. Thus the decision to develop a more broadly based site was made.

I hope you find this Web site to be interesting, informative and useful.
(Magee, Quilt Ethnic Mission Statement)

Only two motivations given by site owners fell outside the established value system of quilters: one blogger gave as a secondary reason to helping others the need to have a place to organize his thoughts in relation to quilting; and another blogger said, "Une idee me trottait en tete depuis plusieurs jours apres m'etre promene sur differents blogs tres sympas....pourquoi pas faire le mien aussi?" ["An idea kept running through my head for several days after I had toured through various attractive blogs....why not make my own too?"] (Ingalls, Début Hesitant).

Though assumptions can be made as to why a quilter will go online to share knowledge and information, at the same time, when the motivation is not clearly expressed, the purpose of the site can be unclear. When *Hester's Quilting Page* was made in 1998, it clearly took a great deal of time and effort. The site owner has gathered Web resources and developed patterns and instructions for site visitors' use, but the site does not discuss or even reference the site owner's quilting in any way and there is no explanation provided as to why this woman would work so hard to create this now-abandoned resource. Lin Hsiu-Fen (2007) suggests that intrinsic motivation is generated by confidence in one's knowledge. The more competent you believe yourself to be, the more likely you are to share information. This comes back to the question of whether site-owner teachers are "optimistic-cognitive" within Savolainen's ELIS model (1995).

Another, unexpressed motivation might be the hope of one day making the Web site a commercial venture. Women who try to make some money from their sites do so in several ways: they offer completed quilts and crafts for sale, sometimes through linked etsy accounts; they have Amazon-linked book recommendations; and they offer patterns for sale. This would not completely account for the labour put into the sites however as crafts when sold usually do not make very much money. The effort put into the sites versus the rewards leaves the sites within the domain of hobbies more than income; e.g. *The Golden Thimble* offers patterns for sale priced at \$5 and \$7.50 apiece, and handmade dolls for \$12—not much income in light of the labour and materials put into the site, the patterns, and crafts themselves.

The motivations for all of this activity are not always expressed, but the consensus of those who do express their motivation and feelings about quilting is that to quilt is a soothing, creatively stimulating act that brings pleasurable emotions and

ties a quilter in nurturing ways to the recipients of the quilts s/he makes. Because quilters enjoy quilting they want to share it. We could also hypothesize that they are enacting the sharing/teaching values from which they have benefitted in learning to quilt, that this specialized context has brought about these information behaviours (Kari and Savolainen 2007, Kim 2000).

Motivations for doing the actual quilting were discussed surprisingly infrequently. Many quilters seemed to assume that if you were part of the quilting community, that you would "get" the desire to stash fabric, to spend time on projects, and the satisfaction derived from it. The discussions of creativity and the motivations make it clear that while quilting rather than teaching is the passion everyone is expressing, the passion they feel in creating the quilts is a primary mover in making them choose to teach site visitors.

Diane Nahl describes "a dynamic flow of situated information behaviour" (an apt description when applied to the online quilting community) that contains components of communication practices, biologic behaviour (cognitive process and reaction to information sought and discovered), and technological information devices (2007, 2024). Her system is described from the perspective of an information user, though much of it could be easily transferred to describe the activities of a constructor/maker of information, at least in the context of these site owners (e.g., adopting values of the group, critiquing received information, use of technology stimulating planning of an informational goal, etc). What is not addressed in her model are the communication practices and biologic behaviours of those who take in information and then want to develop it for others' use. These quilters are receiving information, processing it, and then feeling strongly the need to develop information for others, so that others can enjoy quilting.

The mentoring and teaching aspects of the quilting communities are intriguing in the information-rich open networking that takes place within the group. It is the teaching aspect that seems to best underscore the appropriateness of the term "serious leisure". These site owners, as shown in their expressed motivations, are sincere in their efforts to teach and help other quilters and would-be quilters discover the joy and pleasure they find in quilting. To that end, they have taken a great deal of time and trouble to assist others in their own leisure time, with no real expectation of reimbursement. This voluntary and mentoring aspect of hobbies is one that enables new generations to take up a hobby and carry it forward. The fact that people love to

quilt and want others to experience it too is a simple statement that covers a great deal of complex territory.

Summary of the Findings

This study examines twenty-five Web sites and blogs created by hobby quilters, using domain analysis and grounded theory to extract data that might answer the research questions of the project. Compiled with the use of qualitative sampling methods and analysis, the final dataset provides a thumbnail sketch of the activities of those quilters building online information repositories and resources for public use. It also provides an overview of the information structures commonly exhibited within the quilting sites. A quilting site typology emerges from the dataset, as does the informational conventions of the group around recommending resources, sharing work, sharing of personal information, willingness to teach, and positive communication.

The findings grouped themselves into six themes. Quilters online showed that they still value community and community building just as they do in real-time physical interactions (Stalp 2006, King 2001). They also actively work to recruit new quilters. Quilting is still a very gendered activity, though male quilters are to be found, who provide an interesting comparison and contrast to the average female quilter and female quilting aesthetics. Both genders value generativity, the caring and nurturing aspects of quilting that ties family and friends across generations through the quilts themselves (Piercy and Cheek 2004). This emphasis on family is one of the ways in which the emotional aspects of the hobby manifest themselves, as does the repeated emphasis placed on the emotional state the creative act of quilting provides to the quilter (Csikszentmihalyi 1997). Because of that value, many quilters look to teach others how to quilt so that they can experience the same positive and creative emotions. The efforts of the sites to provide teaching elements underscore the qualities of community and generativity within the group, and the apparent belief that part of quilting is to teach (Prigoda and McKenzie 2007). That desire to teach is claimed as a primary motivator for site owners to create their sites, and is enabled due to the accepting environment of the quilting community that promotes a sense of confidence in those would make contributions (Hsiu-Fen 2007; Ardichvili, Page, and Wentling 2003)

The sample set not only provided data that might answer the research questions, but it raised additional questions: why do site owners abandon their sites after putting so much effort into them? Are site owners more likely to already be, or to

become, optimistic-cognitive in their mastery of life? Can gender affect the approach an individual takes to undertaking a leisure pursuit and yet not impact their information seeking strategies or eventual adoption of community values? Are quilters more or less likely than other serious leisure groups to exhibit these information behaviours?

In the data collected and in the questions raised, it is evident that the information behaviours of online quilters and quilting communities offer a rich and intriguing area of study. Chapter Five will examine the applicability of the findings to the research questions and begin to draw conclusions in relation to them.

Chapter Five – Conclusion

The purpose of this study is to investigate how personal creativity influences the voluntary development of an information resource, with the intent that the findings inform interface design in support of online community development of information repositories. To that end, the study explores why hobby quilting Web sites are constructed and what role is played by creativity. Such a study is interdisciplinary in nature, touching on ELIS, serious leisure, and interface design. This interdisciplinary approach, and the nature of the data to be examined, mandated qualitative research methods.

Within this chapter the research questions are brought together with the findings. At the end of that discussion there are some comments regarding the implications of what has been discovered and future directions for research. Principles are then extrapolated from the findings which could be used to inform interface design for professional organizations.

Study Summary

This study intends to fill certain gaps in scholarly literature within the fields of both LIS and serious leisure. It does so by examining through qualitative research the information behaviours of quilter hobbyists online, in relation to ELIS. Savolainen called for the LIS community to develop the ELIS model by examining the discourse of those who are seeking and using information as part of their way of life activities (1995). More than ten years later Savolainen noted that there is little research available on personal development activities and their attendant information behaviours (Kari and Savolainen 2007), which is an important part of ELIS. In another aspect of ELIS, Huotari and Chatman called for additional research into joint value creation in communities and how changing contexts and cultural groups impact knowledge

processes (2001), while Burnett, in a related discussion regarding the social aspect of information exchange, has pointed out that little research has been done connecting information to social-emotional activities on the internet (2000). Within serious leisure, Stebbins has called for scholars of other fields to research serious leisure (2001), while Hartel has called for more LIS researchers to move from the frequently studied academic contexts to examine a neglected field of study full of rich informational practices (2003). This study also points out the general lack of research in LIS from the perspective of the information provider-builder, rather than the information seeker.

Research was done for this study using a qualitative form of textual analysis, informed by three types of domain analysis methodology. Purposive sampling was done with use of snowball sampling and seventeen sampling criteria. The three types of domain analysis are: bibliometric, studying the texts and recommended resources; epistemological, examining the teaching structures and tools provided; and a study of discourse, looking to identify what themes that surface in the discussions of quilting, using a grounded methodology. The data were then examined in relation to the research questions. The texts were mined to explore how they represent various aspects of personal creativity, motivational statements, statements regarding creativity, teaching elements, and aspects of community building strategies.

Summary of Findings

The study discovered that there is a clear typology of hobby quilting Web sites, breaking into five types. These are gallery of work, teaching, assembly of resources (or information portal), journaling, and commercial. Most of the sites were a hybrid of two or more of these elements (see Figure 15). It is apparent through the sampling process that hobbyist quilters interested during the past couple of years in creating online information repositories are now more likely to create blogs than Web sites. Information sharing within the sites is likely to contain information noise with ad space, informational subthemes, and neglect. The ads detract from the message without giving anything in return to the community. The informational subthemes, on the other hand, appear to be valued by the community as an inherent and expected part of community values, reflecting the community's expectations for information behaviours (Kari and Savolainen 2007, Kim 2000). The sampling process showed that there is a frequent abandonment of sites by site owners, where the initial extreme efforts to create useful resources are not sustained.

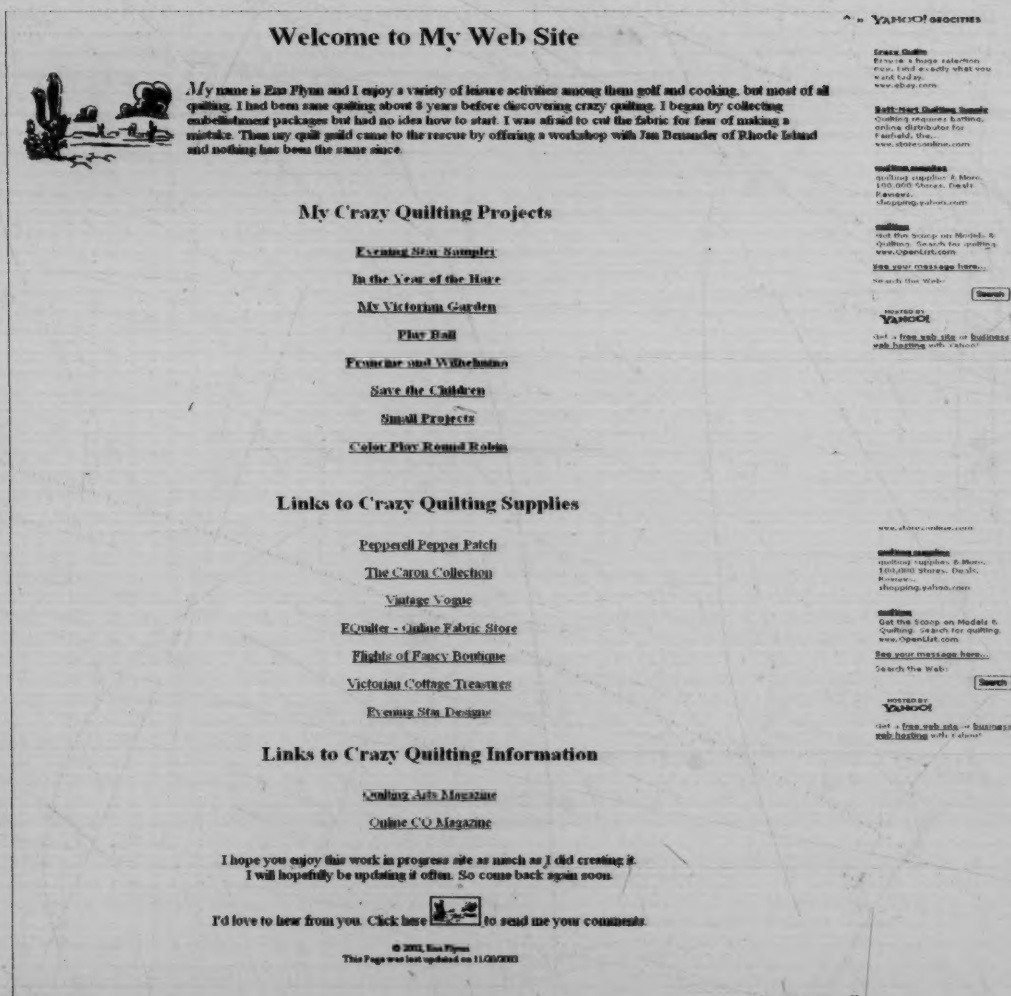


Figure 15. An example of a “hybrid” quilting hobby site and how it combines elements of the typology.
Home page for Ena’s Crazy Quilt Page, <http://www.geocities.com/Heartland/Farm/9138/>.
Permission to use this image granted by Ena Flynn of Ena’s Crazy Quilts.

The themes of this community are benign, cooperative, generative, and contain a high motivation to teach. In some way the quilt object is vested with this value system (Prigoda and McKenzie 2007). Part of learning to quilt seems to be an acceptance of these contextual values, and that of family and generativity, as seen in this quote:

The best thing about making your own quilt is that once it is finished you get to share it with your family and friends! A quilt can be used by someone on a day-to-day basis and serve as a constant reminder of the love, care and attention to detail that went into making it. For this reason many quilts are cherished and kept as heirlooms to be passed down to future family generations. (How to Make a Quilt)

Community building efforts are to be seen not only in the promotion of these values, but in the technological structures of the sites and the discourse strategies used to build community through teaching and fellowship. The community values of acceptance, support, nurturing, and generativity, according to the literature, must be a large factor in site owner's willingness (and the willingness of their site visitors) to share information of various kinds (Ardichvili, Page, and Wentling 2003, 70).

Other findings of the study related to the gendered aspects of quilting, finding that male quilters have attitudes toward quilts and quilting that contrast with that of most female quilters in their attitudes toward this hobby. The creative-social aspects of the quilting community seem to hold constant across gender, however. The social aspects of quilting (guild membership, attending classes and quilt shows, sharing it with family and friends) and the inter-generational teaching of it were the same for men and women. The creative aspects were dissimilar in that the male quilters claimed a distinct aesthetic for their quilting that relied a great deal on innovation, geometric shapes, unusual colours, and straight seams. The women worked with those elements, but were frequently drawn to heritage-style quilts and other tradition-based quilting, such as crazy quilts and Baby Janes. The passion for creativity in this group was remarkable, with quilters accepting terms such as "lifelong passion", "joy", and "addiction" as perfectly comprehensible reactions to quilting. The quilters also claim that the act of quilting provides calmness, emotional healing, and relaxation, and this is appears to be why they are eager to teach new quilters. They are eager to share such an enjoyable pastime and to see others find the happiness, relaxation, and general enjoyment they themselves derive from quilting (Csikszentmihalyi, 1997).

The Findings in Relation to the Research Questions

This section offers possible conclusions as to the significance of the findings and discusses their implications. Each of the research questions will be addressed in turn, in conjunction with the findings, followed by comments on the implications.

How are aspects of personal creativity represented on the Web sites?

Representations of quilts made by the site owner are not shown on every site. Where they are shown, however, the quilt images are sometimes shown in "galleries" and are tagged with information regarding how they were made, for whom they were made, and sometimes a brief comment on the inspiration for the quilt design. Discussion of the quilting process is highly charged with emotional language that is

inextricable from discussions and comments on personal creativity, a phenomenon noted by Csikszentmihalyi (1997). While quilters may talk about why they individually favour disparate styles or techniques, they are unified in their love and passion for the creative process of quilting. Some quilters seem to see quilting as a manifestation of the creative force within them that is evident in other areas of their lives, such as writing poetry, cooking, and creating other handicrafts.

What motivations to post content are given on the sites by the site owners, and does the content reflect those motivations?

When motivations were expressed, they were fully reflected in the site content. The almost unanimous motivation site owners claim for creating these information repositories is to teach. Their willingness to teach speaks to their confidence in their abilities (Hsiu-Fen 2007), their belief that the community will value their contributions (Ardichvili, Page, and Wentling 2003), and their belief that quilting includes teaching others to quilt (Prigoda and McKenzie, 2007). While some quilting resources have teaching elements such as tutorials on technique, others simply want to share their quilting with the public, which is another way to teach. By showing what they are doing, explaining why they are doing it, and providing links to resources that can teach novices about quilting, they are in effect providing a teaching resource. In both cases, the teaching and the sharing sites contain an invitation to others to quilt. Although no site owner explained fully why teaching others to quilt is important, the embedded message is that quilting is a pleasurable activity, and as a result these quilters want others to experience the emotional states of quilting and the values of the quilting community, so that they in turn can have the pleasures of quilting in their lives.

Other sub-purposes were to join in the blogging community since everyone else was doing it (Ingalls, *Début Hesitant*), to organize one's thoughts and projects (McGuire, *First Blog*), to fulfill an information need (Magee, *Quilt Ethnic Mission Statement*), and to possibly create a commercial site that would provide income (Kuck, *The Golden Thimble*).

What strategies are used to encourage the viewer to participate in quilting?

Site owners encourage site viewers to participate in quilting in four ways. They provide examples of their own creativity, or examples of other quilters' creativity, through public galleries (see Figure 1) and use of images, accompanied by discussion of the creative process, with the implicit invitation to join in such a rewarding and satisfying hobby. Supportive and sincere language is a constant in these sites, which

include not only reassuring statements as to the easiness of quilting but occasional offers of personal assistance to any site visitor with a question with language like this: "You can also email me with any questions. I'll do my best to set you on the right path. After all, your success is my success. Right?" (Massard, Learning Quilting). Teaching elements abound in the tutorials written on quilting techniques and history, the free designs offered, and recommended resources compiled for additional reference. The fourth strategy is closely welded to the quilting values of community and family. Community is expressed and made available through structural and technical elements in the sites, and through discourse around such items as guild and listserv memberships, and family activities connected to quilting. In these expressions of community there is explanation of the accepted context of quilting and the openness that exists to recruiting new membership who are thereby assured that they will "belong" if they choose to join in this activity.

Are there communication strategies that appear as themes across the sites investigated that support or contradict Everyday Life Information Seeking (ELIS) information theories?

The activities of quilting hobby site owners confirm ELIS' claim that knowledge exchange is a social practice. As has been mentioned in chapter four, these site owners' discussion of their personal lives outside of and around quilting would seem to indicate that the site owners are optimistic-cognitive in their mastery of life, according to Savolainen's ELIS model (1995, 265). All of the quilting sites are framed by the values of the quilting community, and the construction of these information resources seems to be a manifestation of the community's value placed on teaching and sharing. Context in this instance is so closely aligned to the motivations of these site owners to provide information that it seems to indicate territory not yet mapped by ELIS (Kari and Savolainen 2007, Kim 2000).

Implications of the Findings

Possible application for the findings includes development of the ELIS and the serious leisure models, and application for developing the next generation of interface design for community-informed information repositories, while they point out possible directions for future research.

ELIS, as has been previously indicated in chapter three, is divided by a gap between Savolainen's ELIS, and the ELIS the LIS field has now popularized, which is primarily the study of information behaviour in non-work, socialized contexts (Given

2002). These two can and should be brought together, but this can only happen if the basic ELIS model is developed and extended in order to integrate new findings. This thesis suggests that the model should include information providers, asking what kind of mastery of life leads to the generation of information resources—is it the optimistic-cognitive, as seems to be indicated by this group? Such an idea would seem to be supported by scholarly research that indicates confidence in one's own knowledge and ability is the best indicator of who could be a potential information contributor within a community (Hsiu-Fen 2007). Further, the findings clearly demonstrate that context has an enormous impact on information, both what is expected and what directions it can take (Kari and Savolainen 2007, Kim 2000). In this instance, information is expected to be placed within personal, domestic, family, nurturing settings. That nurturing then spurs hobbyists to teach others about quilting. The impact of cultural context upon information within this group substantiates the findings of Huotari and Chatman (2001).

Serious leisure, other than relying upon Stebbins' original taxonomy of hobbyists, does not provide an accepted information model or unifying theory of behaviour. This paper shows that hobbyists are engaging in significant information behaviours that are impacted by community, gender, and expression of creativity. It also shows that this hobby of quilting brings with it values of family, nurturing, and history, among others, and there is expectation that new hobbyists will embody those values in turn, as the general community does. The question then has to be, are quilters more or less likely to exhibit these information behaviours, since they perceive their craft to mandate teaching (Prigoda and McKenzie 2007), and do serious leisure hobbyists feel a mandate to teach and promote their interest? Does gender impact the approach a hobbyist takes to a traditionally gendered activity, as indicated here? Finally, are there cultural values that are unique to each hobby?

In terms of interface design, the findings largely substantiated the issues discussed in chapter two, reinforcing the need for such features as accommodation of neutral chat (e.g., Teo et al. 2003; Malhotra, Gosian, and Hars 1997). However, this paper contends that a study of quilting hobbyists who create information repositories offers some insight into where interface design could go next in the creation of interfaces to support community-created information repositories. These directions include flexible roles, space for off-topic discussion, and opportunities to splinter from the group when creatively inspired.

A finding of this study was that the quilting sites divided themselves into a clear

5

typology, consisting of galleries of work, teaching, assemblage of resources, journaling, and commercial. Such typology could inform the roles contributors would play in the building of an online information repository within a work context, by indicating potential (exchangeable) roles for contributors to the repository. Galleries of work would allow contributors to showcase their contributions and easily index them. In this way employees are motivated to contribute work done so as to be able to show supervisors that performance goals have been met and efforts made to support the company's information needs (Hsu 2006, 337). Teaching roles would permit supervisors and employees to fill perceived needs for newer employees, and with the assistance of a corporate librarian such materials could be further developed into company records, workshops, and online tutorials, filling ongoing information needs (Baker and Ward 2002). Assemblage of resources could work as a Web 2.0 tool, with company-wide generated tag clouds and bookmarks, providing the interactivity and flexibility demanded by members of online resources (Teo et al. 2003; Malhotra, Gosian, and Hars 1997). Journaling could be a private or public feature, offering the ability for tracking goals, project stages, and items for discussion within groups, and might help to create an environment of support, where employees do not feel that to discuss their work runs the risk of ridicule or "losing face" (Ardichvili, Page, and Wentling 2003). Commercial elements could be provided with contractors and consultants being allowed to post availability and specializations, possibly with recommendations from departments they have worked with in the past, thereby creating another valuable resource to company managers. Such features would meet functional demands, while supporting two established factors in cultivating employee motivations to contribute to information repositories: a performance management system that would reward contributions, and establishing information sharing as a standard part of organizational culture (Hsu 2006).

Although the need for neutral chat within online communities has been noted by researchers such as Sean Googins, James Laffey, and I-Chun Tsai (2007) it needs to be amplified in view of the discourse seen in the quilting sites. As has been noted, the quilting sites reflect values of the quilting community around issues of generativity, family and personal life. Discussion around these issues and how they impact the creation of quilts and the quilting process was bound up in the teaching and information on the sites, a part of this group's cultural context which impacts their information sharing, and is directly related to the quilters' quests for self-improvement and

acquisition of skills (Kari and Savolainen 2007). This revealing and personal approach amongst hobbyists might indicate why, in work settings, so much more success is seen in geographically-based online communities (Fisher and Bennion 2005; Baker and Ward 2002). Employees do not want personal information committed to a permanent work record when online, so exchange of personal information in a work context takes place in face to face interaction. The need for off-topic discussion (as shown in the quilting sites) and for privacy (as shown in work settings), which conflict in the online workplace, has to be resolved for non-geographically based communities to function optimally.

The findings of this paper also indicate the important need to accommodate employee creativity. The emotionally charged conversation in the quilting sites (statements such as "quilting brings feelings of peace and joy") indicated how important it is for these site owners to be free to explore, represent, and discuss their creativity. It also indicates a relationship between expressing creativity and willingness to supply information and teaching resources. Several of the information repositories included in this study were the direct result of someone seeing a need and voluntarily moving to fill it, such as Gwen Magee, who created the *Quilt Ethnic* site. By providing features that permit members of the community to discuss a need and take steps to fill that need, doors are left open for initiative and creativity to occur. Successful experiences within such splinter groups should then positively motivate them to repeat such efforts (Csziksentmihalyi, 1997).

The success of such interfaces long-term, is of course dependent on the community membership feeling that their contributions are valuable and important to the community at large (Erickson and Kellogg 2000; Chewar, McCrickard, and Carroll 2005). The constant focus on sincere and positive language within the discourse of the sites studied indicated that this community sets a priority on helping its membership feel accepted and valued, part of the "giving nature of quilters" (Noblin, About Block Central). One more essential feature of the community interface hypothesized here is that it should provide activity statistics, not only for viewings of contributed material, but of individual employees' contributions in various areas, so that efforts can be noted and rewarded (Erickson and Kellogg 2000). In this way, with positive reinforcement, employee contributors will feel that their work is valued and necessary to the community (Hsu 2006).

Final Comments

In studying the creativity and motivation of online quilting hobbyists who choose to make information resources available to the public, it has become clear that this study, which sought to fill several gaps in the literature, has instead raised more questions than it was able to answer, as discussed earlier in this chapter. The study findings clearly mandate more research into ELIS issues within varying contexts, and serious leisure information behaviours across various hobby activities, ideally by interviewing some of the hobby quilting site owners to see if they agree with the findings of this study, and how they would amplify its findings.

This project was begun believing that the practical application of this research would offer insight into how to tap into employee knowledge and expertise in professional work settings, and encourage the sharing and archiving of that knowledge in electronic community-operated databases. The research indicates that flexible roles, accommodation of off-topic discussion, and opportunities to creatively seek to fill perceived needs, if placed within a positive work-community environment, will help to stimulate employee contributions to electronic knowledge repositories.

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Appendix A: Glossary of Quilting Terms

- Baby Jane quilts** – Quilts whose design can be directly linked back to an antique quilt (the original “Jane” quilt) made by Jane Stickle.
- Block swaps** – When a group of individuals each agree to create x number of identical quilt blocks and exchange them with each other so that each receives an unique block from every member of the group.
- Crazy quilts** – Quilts whose tops are made of small pieces of fabric stitched together without any apparent design (hence “crazy”). These quilts are often made of rich fabrics, such as velvets and satins, and use embellishment, such as embroidered motifs, for additional visual complexity.
- Etsy accounts** – A Web site that allows handcrafters to post tagged images and prices for their goods, and link the account back to the crafters’ Web sites and blogs.
- Generativity** – A term that describes the focus around the quilt objects on family life, family relationships and friendships, and the frequency with which women share quilting within generations of their families (Piercy and Cheek 2004).
- Hand piecing** – Sewing together pieces of material for quilt blocks and borders by hand with needle and thread.
- Hand quilting** – Stitching together the three layers of a quilt with needle and thread to give the quilt stability and to give the quilt a secondary/minor design with the stitching.
- Quilts** – Usually a warm covering, but sometimes made for purely decorative purposes, a quilt traditionally consists of three layers of material: a backing, some sort of batting (a filler to retain heat), and a top.
- Quilt block** – a segment of a quilt top, usually a square, sometimes consisting of various pieces of fabric sewn together to make a pattern of contrasting colour.
- Quilt wall** – Any vertical space that allows a quilter to place completed blocks in relation to where they will be within the completed quilt top, regardless of whether their neighbor blocks are yet complete.
- Quilting Web rings** – Web rings are sites linked together so that a viewer can click on an icon and “page” through the sites in the ring. Sites in Web rings are not only physically linked, but thematically linked, so quilting Web rings link only to those sites whose focus is on the topic of quilting.
- String quilts**—Quilts made from narrow strips of fabric sewn together to create patterns for the quilt top.

Appendix B: Complete Data Sample of Web sites and Blogs

Web site Name	Web site Address	Comment
Block Central	http://blockcentral.com/index.shtml	A professional-looking site that offers free teaching resources and specializes in providing patterns for quilt blocks.
Candy Goff	http://www.handquilter.com/	This site showcases extremely complex quilts entirely pieced and quilted by hand.
Caroline Ingalls	http://la-petite-maison-en-virginie.over-blog.com/	The blog for a French-speaking quilter in the American Midwest.
Crazy Quilt Central	http://www.geocities.com/SoHo/Lofts/6531/	Seeks to be a comprehensive source on all aspects of crazy quilting.
Ena's Crazy Quilt Page	http://www.geocities.com/Heartland/Farm/9138/	A site offering a gallery of personal work and recommended web resources.
Heart Strings Quilt Project	http://heartstringsquiltproject.com/index.html	An online group developing a resource to promote charitable work amongst quilters.
Hester's Quilting Page	http://www.portup.com/~hjbe/quilt/	Free patterns and tutorials offered, with no information provided about the owner or her own quilting.
Laurence Martin – Patchworks, Quilts	http://www.laurencemartin.ca/	A Frenchwoman's bilingual quilting site.
Nana Lord Quilt Project	http://nanalordquilt.blogspot.com/	A blog detailing one woman's work to learn about her grandmother's quilting.
One Quilter's Opinions	http://www.angelfire.com/home/quiltersreview/	Set up to provide an information resource to beginner quilters, with book reviews to identify which quilting publications are best.
Piecepatcher Quilts	http://www.piecepatcher.com/about.htm	A fusion of gallery, teaching, and recommended resource elements. One of the sites displaying an in-progress Baby Jane quilt.
Priscilla's Quilts and Country	http://www.geocities.com/Heartland/4583/index.html	This site mostly contains text and images revolving around the site owner's various creative endeavours.
Quilt Ethnic	http://www.quiltethnic.com/	Created in response to the owner's frustration in trying to find resources on African American quilting.

Quilt The Atlantic	http://www.quilttheatlantic.ca/	A newly created resource for quilters in Atlantic Canada.
Quilting 101	http://www.quilting101.com/	An accumulation of recommended resources, cluttered with a lot of ads.
Quilting Gallery	http://quiltinggallery.com/	The site of a professional web developer and quilter, most of whose blog entries note valuable resources on other parts of the Web.
QuiltNet	http://www.quilt.net/	The site is made up of a long list of links to quilting resources on the Web, no longer maintained.
Rick McGuire	http://www.rickmcguire.net/blogs/quiltblog.html	A blog of one of the male quilters; few entries, now abandoned.
Sew A Quilt	http://www.sewaquilt.com/index.html	A clean and professional-looking teaching site, with almost no reference to the site owner's own quilting activities.
Shirley's Quilts	http://members.tripod.com/inspiring-thoughts/quilts/index.html	A small site, full of ads that can detract from the viewer's experience.
State of the Craft	http://stateofthecraft.blogspot.com/	A blog of one of the male quilters, with many entries and a lot of discussion around quilting issues.
The Golden Thimble	http://www.thegoldenthimble.com/	A site that contains some commercial elements, with items and patterns for sale.
The Joy of Quilting	http://thejoyofquilting.homestead.com/enter.html	A gallery site with a blog.
Womenfolk: The Art of Quilting	http://www.womenfolk.com/	One of the landmark online quilting sites, with a focus on the historic aspects of quilting.
World Wide Quilting Page	http://www.quilt.com/index.html	Claims to be the largest quilting resource on the internet, and has been around for more than a decade, though it has now been abandoned by its owner.